Internship report

on

Project Management Role

in

Software Development Life Cycle

Prepared For:

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BRAC University

Course Code: BUS699

Course Title: Internship

Prepared by:

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ID: 14364004

Program: MBA

Date of Submission: December 21, 2016

"Letter of Transmittal"

December 21, 2016

Mr. Dr. Suman Paul Chowdhury

Assistant Professor

BRAC Business School,

BRAC University

Subject: Submission for report on internship

Dear Sir,

With great pleasure I am submitting the internship report performed at BRAC IT Services Limited for nearly three months. I have found the study to be quite interesting, beneficial and knowledgeable. It is my immense pleasure in presenting you this report based on my experience during my internship. In this report, I have discussed my internship period at biTS, an overview of the company and its activities, my experiences working for a reputed firm, what I have learned and how it has helped me to create banking & non- banking applications software by practicing project management role in software development life cycle.

I also want to thank you for your support and patience with me and I would be glad if you accept this report and provide your precious judgment.

Sincerely Yours,

.....

Sk. Kamrul Islam

ID: 14364004

MBA, BRAC University

"Letter of Authorization"

December 21, 2016

Mr. Dr. Suman Paul Chowdhury

Assistant Professor, and coordinator,

MBA Program

BRAC Business School,

BRAC University

Dear Mr. Suman,

The final internship report of Sk. Kamrul Islam has been submitted to me for clarification. I have gone through the report and all the projects details and his involvement is exact and found nothing that interrupts the company privacy and principles. Furthermore, the information provided is legal.

I wish him all the best and hope he has a successful future ahead.

……..……..

Mohammad Shahadat Kabir

Head of Project Management Office

BRAC IT Services Ltd. (biTS)

Acknowledgement

First and foremost I would like to express the deepest appreciation to Mr. Suman Paul Chowdhury, Assistant Professor from BRAC Business School for guiding me on my internship procedure at BRAC IT Services Ltd. I will always be grateful to him for helping me throughout the processes.

I would like to thank my supervisor Mr. Mohammad Shahadat kabir, Head of Project Management Office for being tolerant and supporting me throughout my internship period. My endless thanks go to Mr. Faiyaz Rabbi & Ms. Jesmen khan for providing me with a good environment and facilities for completing my projects throughout my time at BRAC IT SERVICES Limited(biTS).

I am very grateful to my office colleagues and peers for being so helpful. They have made my internship more enjoyable and without them it would be impossible to done the tasks effectively. I am thankful to all the stuffs of BRAC IT SERVICES Limited(biTS) to make this journey easy.

Executive Summary

An internship is an opportunity offered by an employer to potential employees, called "interns", to work at a firm for a fixed, limited period of time. Interns are usually undergraduates or students, and most internships last for any length of time between one week and 12 months. Internship has various benefits such as teaching students about the industry and job practices.

In my last semester of Master in Business Administration at BRAC University, I had to do an internship program of 3 months in a reputed software company. My internship company was BRAC IT Services, or biTS.

biTS is one of the biggest software firms in the country having a variety of products and services with wide range of clients. biTS has a good reputation both locally and abroad.

During my internship period, I have worked on a project. The name of the project was "Unified Bank Statement from BRAC Bank to GP through FTP Connectivity" for the BRAC Bank Ltd. Through the course of my internship, I had to learn how to co-ordinate and manage a project according to software development life cycle and how to deliver better quality products and ensure better services. Besides, I have learned how to behave properly in the office and picked up many soft skills such as responsibility, timeliness, respecting others, taking on new challenges etc.

I have thoroughly enjoyed my experiences at biTS and the internship program has been extremely useful for both my academic studies and future career.

Glossary of terms

Term	Definition
IASM	IT Asset Service Management
PMO	Project Management Office
MVC	Model View Controller
ISO	International Organization for Standardization
SDLC	System / Software Development Life Cycle
FTP	File Transfer Protocol
BRS	Business Requirement Specification
SRS	Software Requirement Specification
UAT	User Acceptance Test
GP	Grameen phone

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CHAPTER: INTRODUCTION

1.1. OVERVIEW

Internship is a program that enhances the capability of the graduates and a scope to do practical works in an organization related to the student's major to gain the work experience. According to Oxford Dictionary, A student or trainee who works, sometimes without pay, in order to gain work experience or satisfy requirements for a qualification. As the outside world is very competitive for anyone after graduation, internship gives the student great opportunity to have a head start.

BRAC Business School, an institute under BRAC University offers postgraduate program in "Masters in Business Administration". As a student of the postgraduate program, the program requires that we complete an internship period with a reputable company where I will be trained practically with working environment practices and get familiar with the industry. I worked to a software firm BRAC IT Services Ltd. (biTS) where I am to complete 3 months of internship.

In this report, I have discussed my internship period at biTS, an overview of the company and its activities, my experiences working for a reputed firm, what I have learned and how it is helped me to develop and grow and retaining customer satisfaction through products and services.

1.2. ORIGIN OF THE REPORT

This report reflects upon the three-month long internship period at BRAC IT Services. It focuses on overview of biTS, my contribution to the organization and how it has developed my skills and how I have applied project management role in software development.

1.3. OBJECTIVES

The main objective of the report is to analyse the software development cycle and implemntation of project management role in software development life cycle.

1.4. METHODOLOGY

All information used in the report is collected from both internal and external sources. The primary and secondary sources of data for this report are as follows:

1.4.1 PRIMARY DATA SOURCE

- Through personal experience and observation
- Through conversation with other employees

1.4.2 SECONDARY DATA SOURCE

- Company website
- Related office documents
- Internet

1.5. SCOPE

In this document, I have discussed regarding the company, its products and services, office environment and culture and its policies. The second part of the report covers howdid I start my internship and type of work done in my internship period.The third part of the report covers regarding Software Development &how to use project management task in Software Development Life Cycle.

1.6. LIMITATIONS

Firstly, due to the nature of the contract and the confidential agreement I had to sign when joining biTS, I cannot disclose various financial information that are sensitive to the company. Moreover, various constraints such as time and resources have limited my output. But I have still tried to present all the information that I could in the best way possible.

1.7. CONCLUSION

The internship period helps in developing skills and knowledge, but it also gets us in touch with industry experts and the big names. In this report I have given an overview of my company, my experiences working there, my involvement and contributions and finally I have made a self-assessment on my performance during the internship period.

CHAPTER: ORGANIZATION OVERVIEW

2.1 INTRODUCTION

BRAC IT Services Limited is an IT company owned by BRAC and BRAC Bank Limited. biTS strives to become the most trustworthy IT company in Bangladesh providing technology solutions and managing IT Services. biTS provides end-to-end solutions for industries like Banks, Non-Banking Financial Institutes, Educational Institutes, Micro-Finance, NGOs, FMCG etc. biTS has a team of highly capable and professional individuals committed to deliver high productivity, efficiency as well as creativity.

Brac IT Services Ltd. is one of the largest software firms in the country. There are around highly qualified, efficient and innovative employees with one big office building and three other floors in different buildings.

They are committed to Quality Management as per ISO/IEC 9000 QMS guideline, which is not implemented but an ongoing process.

biTS provides various IT solutions, has various products of their own and services BRAC bank and provides all necessary IT support. They believe in providing world class solutions and services at the most convenient way to improve the productivity of large, medium and even small enterprises.

2.2 BACKGROUND OF THE COMPANY

biTS is a proud member of the Brac family. Initially it was founded as Documenta™ Ltd., which was used to be a digital archiving company, owned by Brac back in 1999.Documenta™ Ltd. started its journey with a couple of overseas software development projects and they achieved great success and customer satisfaction. Later in 2013 Brac Bank Ltd took over 51% of that company and merged it with its IT division and renamed it as Brac IT Services Ltd. With the growing number of employees and prosperity biTS itself has become an IT solution providing organization of Brac Bank. Now it is no longer the IT division of Brac Bank and has a number of clients to provide IT services.

2.3 MISSION AND VISION

The missions of biTS are:

1. To create flexible, easy, secured and affordable solutions locally and globally
2. To be known for understandings its customers' business
3. To remain as the dream destinations for IT professionals

The vision is:

We exist to make our customers perform their business so efficiently and effectively by providing innovative technology based solutions.

2.4 DIVISIONS AND DEPARTMENTS

biTS is one of the largest IT companies in the country. To maintain its various activities, there are 8 divisions in the company. Each of the division has different departments and each of the department has different teams. These divisions are:

- Business
- IASM
- PMO
- IT governance and Compliance
- Human Resource
- Software Testing
- Software Development and Integration
- Finance and accounting

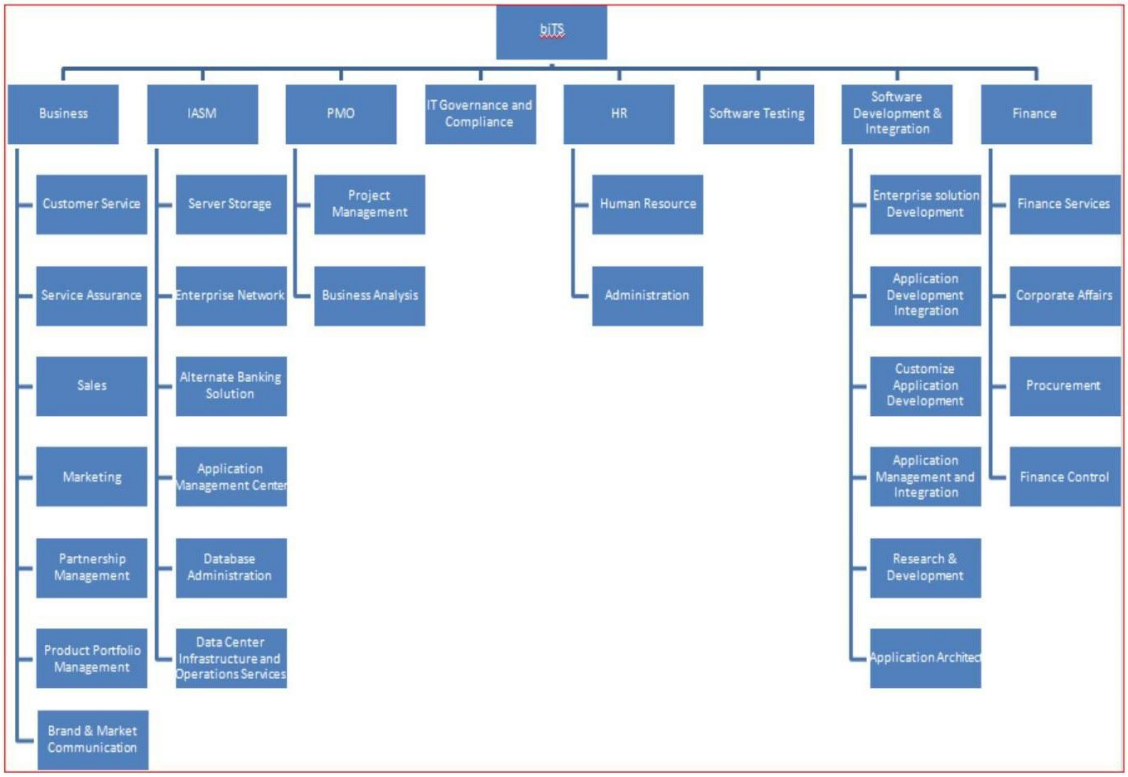


Fig: Organogram of BRAC IT SERVICES (biTS)

2.5 CLIENTS

biTS provides IT solutions to all the companies under Brac's banner. Some of the major companies biTS services are Brac, Brac Bank, Brac University, Brac EPL Stock Brokerage Limited., Brac Institute of Global Health and bKash.

2.6 PARTNERS

biTS has a number of partners both local and global. Among these the team of IFS works here to provide the support and solution to the enterprise resource planning system which is actually a Sri Lankan software. biTS along with this IFS team bring new clients to spread the usage of ERP.

2.7 PRODUCTS

biTS developed about one hundred and fifty products for their clients and they also provide support for the developed systems and IT services. Those products are mainly categorized into

- Enterprise Management Solution
- Educational Management Solution
- Financial Management Solution

In Enterprise Management Solution, there are some solutions which is created biTS.

Enterprise Resource Planning- ERP:

RONGDHONU is one of the most powerful and efficient Enterprise Resource Planning (ERP) solutions available in biTS.This ERP solution is developed to benefit medium and large enterprises by its component-based business applications. Thislight weight heavy duty solution covers most of the required departments or sections of an organization, such as HumanResources, Accounting & Finance, Marketing and Sales, Project Management, Procurement, Supply Chain Management andmany more. Organizations are vastly benefited by the solution as it is developed using state of the art technologies and fullycloud based computing facility.

Enterprise Human Resource Management:

JONOBOL is a small light weight off the shelf solution for Small and Medium Organizations. JONOBOL is tailor-made to helpmanage a human resource department needs and daily activities. Many of these activities deal with corporate benefits, vacation days, salary compensations, employee information, and performance. This software can reduce many of the unnecessaryprocesses that are implemented, therefore decreasing overhead costs. It also provides the needed tools to make any humanresource department more efficient and organized.

Payroll Management Software:

BETON is a sophisticated solution to surpass the traditional payroll system that guides the customers into the future - an easy,user friendly, technologically advanced system. BETON provides an integrated approach to manage the payroll system of theorganization and facilitates error free Payroll Management on an intuitive and easy-to-use platform. Necessary securityparameters are integrated to ensure that all the employee payroll related data is safe. With BETON, the finance departmentcan smartly manage employee salaries, paycheques, pay slips, expense reimbursements, retirement compensations etc.

BETON is an ideal tool to handle the complex statutory taxation legislation to calculate the employee and organizationalincome taxes with maximum accuracy.

Accounts & Finance Management:

HISHAB Accounts Management System is a custom-made solution that comprises of all the features and functionalities to aidany accounts department, irrespective of the size of the organization it belongs to, perform its responsibilities with utmosteffectiveness and efficiency. HISHAB is designed to facilitate all sorts of regular accounting activities. Moreover, it has thecapability to manage other issues like trade costing, time and billing, fixed assets, in-depth inventory, etc.

biTS has also developed a number of educational management solution such as

Porua CMS(College Management Solution):

PORUA CMS is a student and academic activity management software for any college of thecountry. Students Admission Process Management, Students Section Management, Students Attendance Management, SMS Notifications, HR Management, College Management, Vehicle Management, Library Management, Inventory Management and Accounts Management are few of the key features of PORUA CMS.

Porua SMS(School Management Solution):

PORUA SMS is a comprehensive solution for all the schools of the country who have access to the internet. Students Admission Process Management, Students Section Management, Students Attendance Management, SMS Notifications, HR Management, School Management, Vehicle Management, Library Management, Inventory Management and Accounts Management are few of the key features of PORUA SMS.

Porua VMS(Varsity Management Solution):

PORUA VMS is a comprehensive solution for open credit universities. It is a highly customizable solution for students and academic activities. Student Admission Process Management, Admission Test Management, Registration Management, Advising Management, Course Schedule & Material Management and Accounts Management- are few of the key features of PORUA VMS.

biTS has also developed large number of Financial management solution for BRAC Bank such as

- Account Opening
- Loan Management
- Debit and Credit Card Management
- Transaction Management
- Around 90% applications of BRAC Bank

2.8 TECHNOLOGY

biTS has a large variety of products that target a large number of clients with varying needs. To provide solutions to all these different clients, biTS need to adapt new technologies to develop their products. A majority portion of their projects are in the ASP .NET framework as well as various java frameworks. They developed about 40% of their products in ASP.NET, 40% in java, 10% in PHP and 10% of their products are developed for mobile phones.

The frameworks they use:

- ASP .NET- Model-View-Controller (MVC), WebForm
- Java Web Application- Play, Flex, Hibernate, Groovy on Grails

Languages used:

- Java
- C#
- Javascript
- jQuery
- PHP

Mobile Application platforms:

- Android
- Windows
- iOS

Database:

- Oracle
- Postgre
- SQL Server

2.9 RULES AND REGULATIONS

From time to time, workers may violate the policies that are set for the company. Even if an employee breaks the rules with the best of intentions, the flow of the workplace can be impacted negatively. When the team is working toward the same goal and following the same regulations, it can be easier to fulfill the goals set by the company.

biTS has its own set of rules and regulations that are followed in the workplace. Some of the key principles regarding to the rules and regulations at biTS are:

FLEXIBILITY

biTS follow a semi-rigid structure of rules and regulations. In most cases, violations of rules and regulations in smaller scales do not affect the employees too much. The emphasis on rules and regulations are often flexible which allows for a more carefree and expressive environment.

SEMI-FORMAL ATTITUDE

biTS do not maintain strict formalities in their behavior and approach. Employees are free with each other.

DRESS CODE

In biTS, employees generally take on semi-formal attire. Employees are encouraged to be comfortable but overly casual dresses are not allowed.

OFFICE SCHEDULE

The office time is flexible enough for the employees. Employees should reach office within 9.00 am to 10.00 am and should stay in office at least 8 hours from the arrival time. Additionally there are lunch and prayer breaks.

2.10 CONCLUSION

biTS is one of the largest software firms in the country. It has a large number of products and services. But despite being such a big company, biTS has a friendly and homely working environment where employees are all friendly towards each other and make for a wonderful working experience. It works as a great learning institute as supervisors and seniors are always willing to help. I thoroughly enjoyed my time working at biTS.

CHAPTER: MY INTERNSHIP AT BRAC IT SERVICES

3.1 OVERVIEW

In our academic curricullum, the course outlines are so designed that they each have a defined purpose that helps shape the student to become as well prepared as possible when he/she graduates. The internship program has its purpose too. The most obvious benefit of the internship program is receiving real-life, on-hand training in the industry that a classroom can never simulate. The other notable benefit is learning how to behave in a professional setting. Learning about the best practices and popular technologies and processes falls under that former category. Responsibility, timeliness, cordiality, respect etc. fall under the latter category.

This chapter outlines my internship experiences, my involvement with BRAC IT Services in the last 3 months, how I have contributed to the company and what I learned during my internship experiences.

3.2 INTERNSHIP EXPERIENCE

biTS is a moderately large software company in Bangladesh and already has many products and services that are operational. Working at biTS has given me insight into how large software company functions and the practices that are followed.

3.2.1 BRAC IT SERVICES

I was delighted to have the opportunity to do my internship at biTS because it gave me a huge opportunity to learn work from some of the most experienced software test engineers in the country at biTS and experience for myself how a company works.

3.2.2 RECRUITMENT

biTS called me for a interview where I was asked casual questions about myself by the CEO, Head of HR, and Head of Project Management Office. The interview was friendly and I was received fairly well. A few days later I was asked to join start and start working.

3.2.3 FACILITIES GIVEN TO INTERNS

During my time as an intern at biTS, I was given my own desk, a computer, internet connection and other office supplies such as stationeries. Snacks and tea/coffee were also provided from the office. First aid and other medical supplies were available at the office.

3.2.4 EVALUATION PROCESS

A team leader or mentor to keep track of my progress. I had deadlines for each task that we had to meet. Based on my progress, I was provided beneficial feedback, which would prove to be really helpful for my future careers.

3.2.5 PERSONAL EXPECTATIONS

My expectations on what I wanted to get from this internship experiences are listed as follows:

- Learning about software development life cycle
- Understanding the project management task
- Learning about new technologies
- Time management and responsibility
- Good relationship building

3.2.6 CONCLUSION

My expectations were mostly met and I'm pretty satisfied with my internship program. biTS has helped me to learn and develop my skills. The company has always encouraged me to learn the technologies and practices that interested me. Moreover, I was even given the responsibility of an entire application that taught me to manage and maintain project by myself.

CHAPTER: Software Development Life Cycle & Project Management Overview

4.1 Software / System Development Life Cycle

SDLC stands for software development lifecycle. A software development lifecycle is essentially a series of steps, or phases, that provide a model for the development and lifecycle management of an application or piece of software. The methodology within the SDLC process can vary across industries and organizations, but standards such as ISO/IEC 12207 represent processes that establish a lifecycle for software, and provide a mode for the development, acquisition and configuration of software systems.

A systems / software development life cycle is composed of a number of clearly defined and distinct work phases which are used by systems engineers and systems developers to plan for, design, build, test, and deliver information systems. Like anything that is manufactured on an assembly line, an SDLC aims to produce high-quality systems that meet or exceed customer expectations, based on customer requirements, by delivering systems which move through each clearly defined phase, within scheduled time frames and cost estimates.

There are two different types of SDLC that can be used: waterfall and agile. The major difference between the two is that the waterfall process is more traditional and begins with a well thought-out plan and defined set of requirements, whereas agile SDLC begins with less stringent guidelines and then makes adjustments as needed throughout the process. Agile development is known for its ability to quickly translate an application that is in development to a full release at nearly any stage, making it well suited for applications that are updated frequently.

Generally, there are six phases in Software development life cycle model. They are stated below.

- Requirement gathering and analysis
- Design
- Implementation or coding
- Testing
- Deployment
- Maintenance

1) Requirement gathering and analysis: Business requirements are gathered in this phase. This phase is the main focus of the project managers and stake holders. Meetings with managers, stake holders and users are held in order to determine the requirements like; Who is going to use the system? How will they use the system? What data should be input into the system? What data should be output by the system? These are general questions that get answered during a requirements gathering phase. After requirement gathering these requirements are analyzed for their validity and the possibility of incorporating the requirements in the system to be development is also studied.

Finally, a Requirement Specification document is created which serves the purpose of guideline for the next phase of the model.

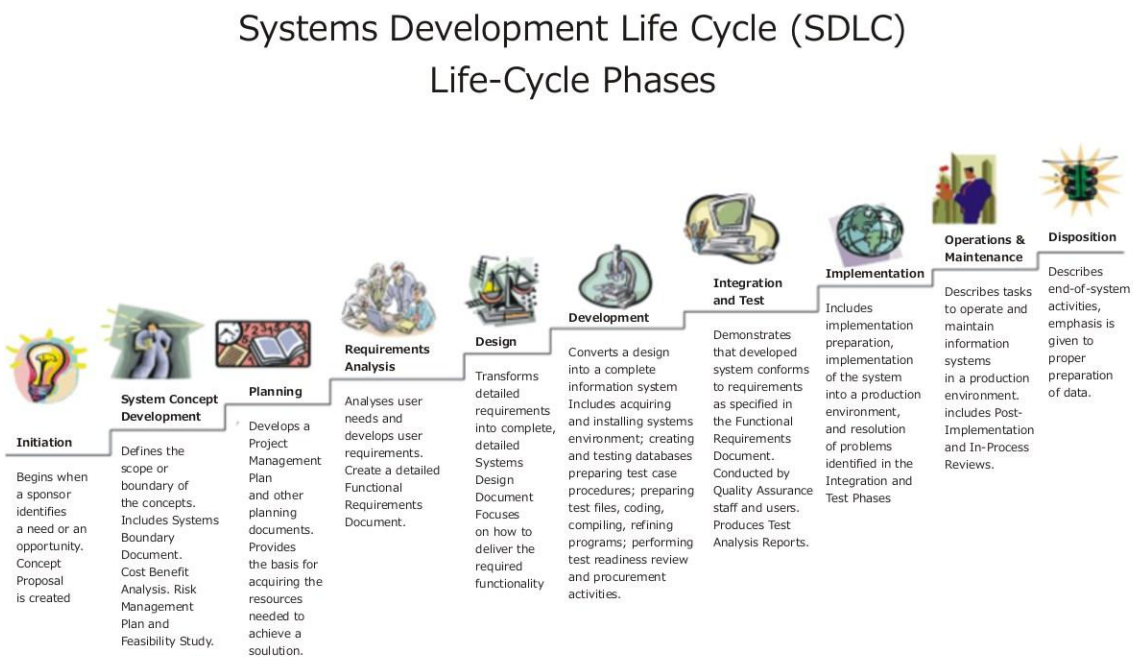
2) Design: In this phase the system and software design is prepared from the requirement specifications which were studied in the first phase. System Design helps in specifying hardware and system requirements and also helps in defining overall system architecture. The system design specifications serve as input for the next phase of the model. In this phase the testers comes up with the Test strategy, where they mention what to test, how to test.

3) Implementation / Coding: On receiving system design documents, the work is divided in modules/units and actual coding is started. Since, in this phase the code is produced so it is the main focus for the developer. This is the longest phase of the software development life cycle.

4) Testing: After the code is developed it is tested against the requirements to make sure that the product is actually solving the needs addressed and gathered during the requirements phase. During this phase all types of functional testing like unit testing, integration testing, system testing, acceptance testing are done as well as non-functional testing are also done.

5) Deployment: After successful testing the product is delivered / deployed to the customer for their use. As soon as the product is given to the customers they will first do the beta testing. If any changes are required or if any bugs are caught, then they will report it to the engineering team. Once those changes are made or the bugs are fixed then the final deployment will happen.

6) Maintenance: Once when the customers starts using the developed system then the actual problems comes up and needs to be solved from time to time. This process where the care is taken for the developed product is known as maintenance.



4.2 Project Management

Project management is the discipline of initiating, planning, executing, controlling, and closing the work of a team to achieve specific goals and meet specific success criteria. A project is a temporary endeavor designed to produce a unique product, service or result with a defined beginning and end (usually time-constrained, and often constrained by funding or deliverables) undertaken to meet unique goals and objectives, typically to bring about beneficial change or added value.

The core components of project management are:

- defining the reason why a project is necessary
- capturing project requirements, specifying quality of the deliverables, estimating resources and timescales
- preparing a business case to justify the investment
- securing corporate agreement and funding
- developing and implementing a management plan for the project
- leading and motivating the project delivery team
- managing the risks, issues and changes on the project
- monitoring progress against plan
- managing the project budget

- maintaining communications with stakeholders and the project organisation
- provider management
- closing the project in a controlled fashion when appropriate

4.3 Project Life Cycle – Software Development

Process Group	Steps Description	Deliverables Description
Initiation	1. Project Start - a project has a delivery goal, a beginning and an end. The signing of the contract marks the beginning of the formal project. In the following we will describe a typical project model, where “Project start-up” is the very first step of the project. 2. Project Questionnaire – questionnaires are written sets of questions designed to quickly accumulate information from a wide number of respondents. 3. BRS/ Business Case - a justification for a proposed project or undertaking on the basis of its expected commercial benefit. 4. Cost-benefit analysis - Cost-benefit analysis (CBA), sometimes called benefit–cost analysis (BCA), is a systematic approach to estimating the strengths and weaknesses of alternatives that satisfy transactions, activities or functional requirements for a business. 5. Define Technical Solution - the Solutions Architect outlines solution architecture descriptions across domains, functions, and industries, then monitors and governs their implementation. 6. Brief Project Plan-Identification/Estimation [Cost, time, procurement, Stakeholder Identification, Communication,	**1. BRS/RFP** **2. Questionnaire** **3. Feasibility analysis** **4. Project proposal** **5. Agreement**

	Quality, Risk response, Stakeholder reporting] 7. Project Proposal - project proposals are documents designed to present a plan of action, outline the reasons why the action is necessary, and convince the reader to agree with and approve the implementation of the actions recommended in the body of the document. 8. Agreement sign-off	
Planning/Design	1. Project kick-off meeting - The kickoff meeting for a new project is the best opportunity to energize the group and establish a common purpose toward completing the work. 2. Detail Functional SRS - The Functional Requirements Specification documents the operations and activities that a system must be able to perform. 3. Team formation/resource plan - A team is generally established to work on a particular project or task. When the task is complete, the team then generally disbands. 4. Detail Project plan- Finalization [Cost, Time, stakeholder Communication, Quality, procurement, risk response, stakeholder reporting] 5. Test case finalization - a test case, in software engineering, is a set of conditions or variables under which a tester will determine whether an application, software, system or one of its features is working as it was originally established for it to do.	**1. Functional SRS** **2. Project Team** **3. Detail Project Plan** 4. **Test case**
Development/Execution	1. Application development/Project Execution - executing consists of the processes used to complete the work defined in the project plan to accomplish the project's requirements. Execution process involves coordinating people and	**1. Software development** **2. Detail technical SRS** **3. Project update, monitoring & controlling, risk**

	resources, as well as integrating and performing the activities of the project in accordance with the project management plan. 2. Unit/system test (internal) - system testing is a more limited type of testing; it seeks to detect defects both within the "inter-assemblages" and also within the system as a whole. 3. Detail Technical SRS 4. Level 3,4 support/bug fix up - a bug fix is a change to a system or product designed to handle a programming *bug*/*glitch*.	**response, etc.** 4. **Project reporting**
Monitoring & Controlling/Quality Control/Testing	1. Unit/system test (internal) 2. Conduct UAT - User acceptance testing (UAT) is the last phase of the software testing process. During UAT, actual software users test the software to make sure it can handle required tasks in real-world scenarios, according to specifications. 3. Agreed with deliverables 4. Release Note - release notes are documents that are distributed with software products, often when the product is still in the development or test state (e.g., a beta release). 5. User/technical manual - It is usually written by a technical writer, although user guides are written by programmers, product or project managers, or other technical staff, particularly in smaller companies.	**1. Unit/system test** **2. User technical manual** **3. UAT** 4. **Release note**
Implementation/ close-out	1. Pilot runs/roll-out plan - The process of planning for the physical distribution and deployment of a release into the live environment. 2. Implementation - the process of putting a decision or plan into effect; execution. 3. Administrative training 4. User training	**1. Details pilot run/roll-out plan** **2. Go-Live – Issue log** **3. Lessons learnt** **4. Hand-over** **5. Project close-out**

	5. GO LIVE 6. Project close-out	
Training, support, maintenance	1. Support Training – equipment, devices, and aids used to facilitate an operation efficiency and maintenance of the system or process 2. Issue log – issue log is a documentation element of software project management. 3. Level 1,2 support 4. Project hand-over 5. Support level 1,2 & maintenance	**1. Support – Issue log**

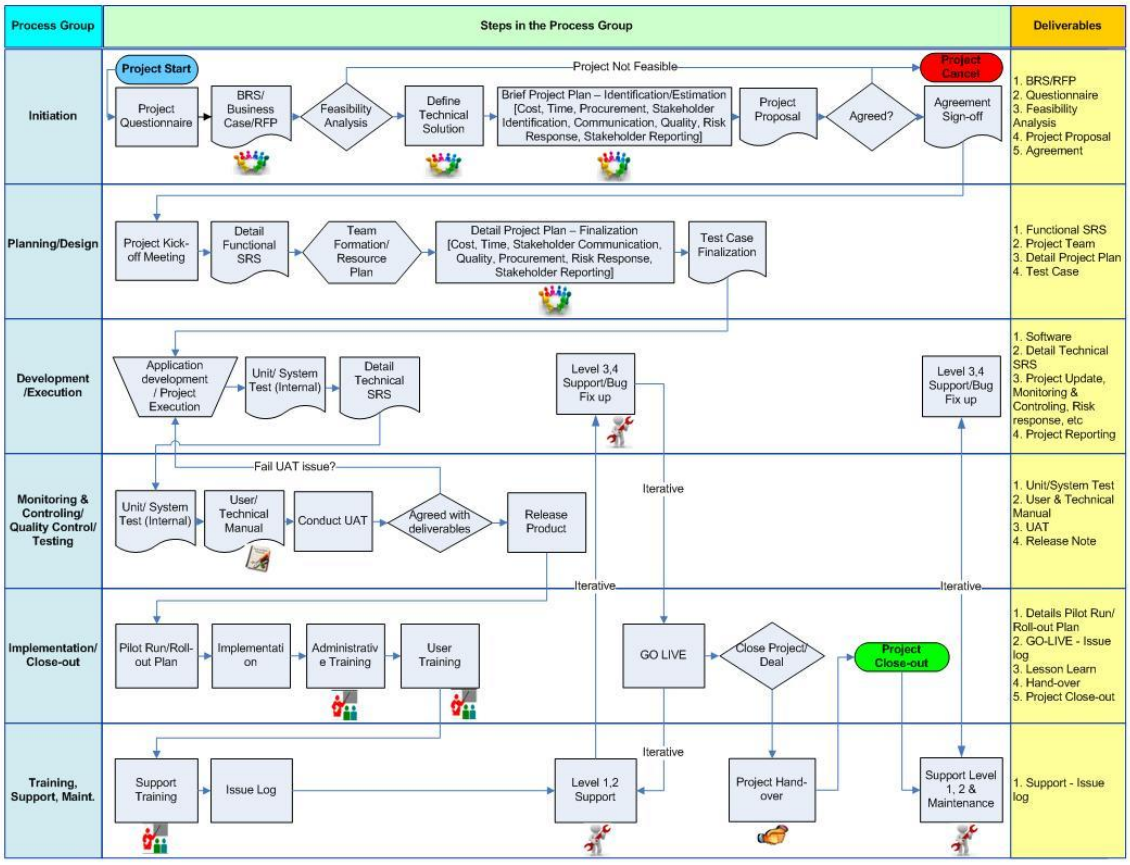


Figure: Project Life Cycle – Software development

4.4 Project Management Role in Software Development Life Cycle

A project manager / project co-ordinator plays different kinds of role in Software Development Life Cycle which is similar with my task in biTS as project co-ordinator.

Initiaition:

At first project co-ordinator send RFP with a questinnaire to client organization for review. If the client accept the RFP. Then client or customer send the BRS. Project Manager reveiw the BRS and ask to client if any clarification required. After that, cost-benefit analysis is done. Then Agreement is signed between both parties. Total project value and Support & Maintanence fee is setteled with agreement.

Planning/Design:

In this stage a project co-ordinator, arrange a kick-off meeting with stakeholders to set the milestone of this project and discuss about software requirement specification(SRS) and any type of technical clarification. A project manager forms the project team with expert resources. Detail project plan is prepared and share it with stakeholders. Scope is finalized by development team. Test case is finalized with testing team.

Development/Execution:

After approving the project plan by stakeholders, a project co-ordinator instuct application development team to start the development. Then development team design and develop the system by programming. They do code review and unit testing afte compleing the development. After completing the development they prepare testing handover checklist to test the release by testing team.

Monitoring & Controlling/Quality Control/Testing:

A project co-ordinator monitors the development process and check whether scope of BRS has been implemented in development cycle or not. After receiving the testing handover checklist, testing team sit with development team team for knowledge share about the development release. After knowledge sharing session, testing resource start testing the features of the new system.They do full system testing, regression testing and if any bug/error is found in the system during testing then they send it to this to development team again and notify the project co-ordinator. Then the developer solve the issue and send realease again to testing team for the bug issue. Then testing resource agian test it. After completing testing, tester share the final release with project co-ordinator and request to send it to user for User Acceptance Testing(UAT). Then project co-rdinator sent it for UAT to the stakeholders. End user or stakeholders conduct the UAT and if the have any feedback, the inform it to the project co-ordinator. Project co-ordinator check it and instruct the developer to incorporate it. Then UAT has to do again with the end user. After successful UAT, user send the acknowledgement by UAT signoff document. In the mean time, tester prepare an user manual to operate system after live deployment.

Implementation/close-out:

After receiving the signoff document, project co-ordinator collects necessary approval to deploy the final release in live environment. In case of test basis, the release is deployed as pilot basis and observe few days that it is properly working or not. If it works properly then it is deployed in permanent basis. After the deployment, project co-ordinator / project manager arrange to provide end user training by project team so that User can smoothly operate the system as well as user manual is shared with end user. Then project close-out document is prepared and both parties(project manager & Stakeholder) sign it and by this a project is closed and project management task is completed in SDLC.

Training, support, maintenance:

Training, support & maintenance are not project management task. It is provided by the support team as per agreement of project. It is provided to the clients after successful completion of project.

4.5 My project task during Internship period:

During the internship period, I was assigend to co-ordinate a BBL In house project and assist Mr.Faiyaz Rabbi, a project manager of biTS to project related different works. At first, BRAC Bank initiated a project with Grameenphone to send some account statement information through FTP server with automation system. The project name "Unified Bank Statement from BRAC Bank to GP through FTP Connectivity". As biTS is the subsidiary company of BBL, it does not send any RFP to initiate a new in House project. biTS project manager sent request to initiate a project by email. Then stakeholders send BRS through relationship manager through Technology division of BBL IT. As same as, stakeholders sent the BRS of GP project after requirement finalization meeting. Our project manager prepare the project value by counting man-days and created project team. My responsibility was to follow up project team in case of completion of different tasks. Besides this, I prepared with the guidance of our project manager in ms project. Then kick of meeting was held. I took meeting minutes of the Kick-off meeting. I have given follow up to the developers in the time of starting development and unit testing and testers in the time of full cycle testing and regression testing of the new system. After completion of testing, I arranged a physical UAT session with our project team and stakeholders in Brac Bank. Users were satisfied to see the new automation system with GP. For this reason no UAT feedback comes. After this successful UAT, end user send the signed UAT signoff document as their acknowledgement. Then, necessary approvals were collected by our project managers and arrange a live deployment session with technical team to deploy the project in live. After live deployment we requested to end user check the functionality of the system from their end. They checked for one week and after that the confirmed us that everything is okay.

Then we deployed the system permanently and declare it live by email circulation. Then I prepared a project closure document and our project manager close the porject finally.

CHAPTER: RECOMMENDATION & CONCLUSION

5.1 Recommendation

I have done my internship at Brac IT services(biTS) for three months. In this inernship period, I have received nice cooperation from colleagues. biTS has nice working environmnt for the employees. During this internship period, I have worked on a project named "Unified Bank Statement from BRAC Bank to GP through FTP Connectivity". However, I have found some findings throughout my internship and there are some recommendations which are stated below:

- **Project Reporting:** The project managers prepare fortnightly reports for all in house projects and send it to Head of project management. HoPMO review the reports and send it to biTS and BBL management. Then biTS project managers sit with biTS and BBL management regarding this fortnightly report to settle all dispute issues. But I think if biTS can take decision to conduct this meeting in every week, then the dispute issues may be addressed and solved more quickly.

- **Project Management Tool:** The fortnightly report of biTS is prepared manually in excel sheet from a google spreedsheet. It takes almost two days to prepare a complete report with graphical presentation. There are lots of project management tools (Jira, A1 Tracker, Deltek Vision) in the world. If biTS could purcahse and use a project management tool, it may be possible to get project report automatically from it. Time & cost could be saved by using this project management tool.

- **Communication:** In case of project work during my internship, I have noticed that stakeholders would communicate with technical resource directly i.e network engineer, developement engineer. But normally in general cases in terms of project work stakeholders or clients suppose to communicate with project manager or project co-ordinator. For this reason, both party has faced understanding gap and confusion in different tasks. Therefore, it is not possible to deliver the project on time. If the communication would held between project team & stakeholder in every

matters then the project delivery could be on time according to project plan.

- **Technical Challenge:** To deploy the project, development team as well as we all faced a technical difficulty in live database. A procedure or SP was being invalid in live database after 12 am every night which would interrupt to generate statement for GP. We have created a scheduler to stop the SP become invalid. It was a configuration issue of Finacle. If the configuration issue would address at first in Finacle and solve the configuration issue then this problem in database could not occur.

- **Training:** The project managers of biTS works in different kinds of projects for BRAC Bank, BRAC, BRAC EPL, BRAC Dairy, Arong etc. Therefore, biTS management can arrange to give training facility to its project managers & project co-ordinators. It may make the poject managers and co-ordinators more efficient in terms of managing the projects.

5.2 Conclusion

The internship program is a great opportunity of us because it enables us to learn about the industry and various practices. It also teaches us about the various skills needed to work in an office with other employees. It offers something we can never learn inside a classroom setting.

I had enjoyed my time at biTS and learned a lot of things that will help me build my career and also enhance my academic learning. I managed to put a lot of theories I learned in class in a practical applications. Moreover, I have made valuable contacts in the industry and enriched my network greatly.

I came to know regarding different tasks and processes of project management learned a variety of new technologies and along with many skills that are essential for building career and provide competitive advantage to me then others to do work in project management in future.

I am grateful to my institute, BRAC University for providing me quality education and knowledge throughout this years.

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