**Chapter-4: Software Project Management Plan**

**4.1 Document History and Distribution**

This document has been built based on requirements gathered for the software project “EKSHEBA HELPDESK”. All the developers will be handed this document to base their development scope upon.

**4.1.1 Revision Story**

|  |  |  |  |
| --- | --- | --- | --- |
| Revision # | Revision Date | Description of Change | Author |
| 01 |  | Primary Phase |  |
| 02 |  | YES |  |

**4.1.2 Distribution**

|  |  |  |
| --- | --- | --- |
| **Recipient Name** | **Recipient Organization** | **Distribution Method** |
| HEAD PSI CLUSTER | A2I | Hard Copy, Soft Copy |

**4.2 Overview**

**4.2.1 Purpose and Objectives**

The main objective of this document is to illustrate the requirements of the software project EKSHEBA HELPDESK. The document gives the detailed description of the both functional and non-functional requirements for this system. The document is developed after a number of studying the requirement specifications paper of the given Project. The final product of the team will be meeting the requirements of this document.

**4.2.2 Project Scope**

* Provide support service to the user.
* Monitoring work of support team.
* Ensuring work flow by providing regular support.

**4.2.3 Assumptions and Constraints**

The assumption during the project is

* Development does not have enough support and budget as a whole to complete the project.

The constraints during projects are

* The development team has not quite enough experience as a whole to complete the project.

**4.3 Project Deliverables**

**4.3.1 The list of project deliverables is:**

1. Statement of work

2. Software Requirement Specification

3. Software Project Management Plan

4. Software Design Plan

**4.3.2 Schedule and Budget Summary**

|  |  |
| --- | --- |
| **MILESTONE OR MAJOR PROJECT DELIVERABLE** | **PLANNED COMPLETION DATE(DAY)** |
| SOW | 12/12/2019 |
| SRS | 14/12/2019 |
| SPMP | 16/12/2019 |
| SDP | 17/12/2019 |
| Software Testing Plan | 19/12/2019 |
| Presentation and Project Progress | 22/12/2019 |
| Technical Documentation | With completed Product |
| Software evaluation report | Along With Final Submission |

**4.4 Evolution of the Software Project Management Plan**

The preliminary drafts of the SPMP will be submitted to the project manager and after approval; copies of the same will be distributed to the members of the group on the date as referred to in section 1.1.4.

4.4.1 Definition

|  |  |
| --- | --- |
| **Terms** | **Description** |
| SOW | Statement of Work |
| SRS | Software Requirement Specification |
| SPMP | Software Project Management Plan |
| SDP | Software Design Plan |
| SQATP | Software Design Plan |
| Impact | 1-catastrophic  2-critical  3-marginal  4-negligible |

**4.5 Project Organization**

Project organization depends on three major Structures

**4.5.1 External Interfaces**

EKSHEBA HELPDESK users will be responsible for formal interaction between the developer’s team and the customer contact. Necessary interaction will be done through anyone on the team, but all discussions with the customer will be documented clearly for record. All customer requests for services or configuration item changes will be in writing and approved by the project’s Configuration Control Board (CCB), which consists of all team member.

**4.5.2 Internal Structure**

There are four members for this project. All members have specified areas of responsibility and everybody contributes equally to the project. The team members will change roles throughout the life of the project, and each member will continue to have more than one role.

**4.5.3 Roles and Responsibilities**

The software developer is responsible for all documentation to be developed and also for all work to be done.

**4.6 Managerial Process Plan**

**4.6.1 Project Start-up Plan**

Because most of this information was pre-defined for the team, this section will not describe the rationale for many of these choices.

**4.6.2 Estimation Plan**

As previously stated, the total development time is estimated to be 4 months and the total internal cost to be BDT 180,000. These figures were obtained by expert judgment by analogy, that is, by comparison with similar projects.

**4.6.3 Staffing Plan**

Each team member will be available for 8 hours per day and 5 days a week, as the project purpose requires. This time includes the team and supervisor meetings, document preparation and inspection, and tool development.

**4.6.4 Resource Acquisition Plan**

• All resources for the project will be available at the start of the project and will not change substantially over time.

• The team member’s roles will change according to project needs

**4.6.5 Project Staff Training Plan**

No additional staff training is needed for this project.

**4.7 Work Plan**

Work Activities and Schedule Allocation

**4.7.1 Budget Allocation**

|  |  |  |
| --- | --- | --- |
|  | **Hours** | **Costs** |
| **Agency Labor** |  |  |
| **Contract Labor** | N/A | 0 BDT |
| **Non-Labor Costs** | N/A | 0 BDT |
| **TOTAL HOURS / IMPLEMENTATION COST** |  |  |

**4.8 Control Plan**

**4.8.1 Requirements Control Plan**

When changes are to be made in the requirements after the Software Requirement Specification has been released, the changes shall be brought to the attention of the developers and discussed. Any changes that are to be made will be with the prior approval of the supervisor and only if feasible and permissible within the constraints of the project and resources in terms of knowledge and skill of the developers required. Once the changes have been made to the Software Requirement Specification document, an updated version of the Software Requirement Specification will be released.

**4.8.2 Schedule Control Plan**

If the work scheduled in section 1.1.4 gets behind, the developer will be ready to spend extra time on the project in between and after the schedules to make up for the lost time and deliver the final project on time.

**4.8.3 Budget Control Plan**

Average monthly income will be determined by totaling all earnings for the year and dividing by 12. Average monthly spending will be generated by tracking all expenditures. "The difference between "Budget" and "Current Spending" will be the savings. If expenditure exceeds the income than steps may be follow to cut back on expenditures, depending on the specific savings goals. Expenses are monitored by the project manager, and reported and accessed via the Weekly Status Report.

**4.8.4 Quality Control Plan**

Any major changes that affect the milestones or the budget will have to be approved by all and documented. All will be responsible for ensuring that the project will be completed on time and within budget. This will be accomplished through daily meetings of the team members with the supervisor. At each meeting, developer team will present the day’s progress and problems. Everyone together will determine whether they are progressing as expected and whether they are following the specification document and the project management plan. Any major problems faced by the team members will immediately be reported to all.

**4.8.5 Reporting Plan**

The updated Software Project Management Plan will be circulated as mentioned in schedule of section 1.1.4. Each of preliminary versions of all the documents and updates and status reports will be sent and discussed with the advisor and upon approval the approved document will be circulated to the other members of the team. The report on the status of the project will be sent to the members of the team.

**4.8.6 Metrics Collection Plan**

As the system based on object oriented so the metrics focus on measurement that can be applied to the class and the design characteristics— localization, encapsulation, information hiding, inheritance, and object abstraction techniques—that make the class unique.

**4.9 Risk Management Plan**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Risks | Probability | Impact | Rating | RMMM |
| Project Manager Availability | 50% | 3 | Medium | R-1 |
| Schedule Slips | 70% | 1 | High | R-2 |
| System goes hour | 60% | 3 | Medium | R-3 |
| Project Canceled | 30% | 4 | Low | R-4 |
| False Feature rich | 40% | 2 | Low | R-5 |
| Frustrated Programmers | 80% | 2 | High | R-6 |
| Staff Availability | 60% | 2 | Medium | R-7 |
| Customer Participation in Beta Testing | 30% | 3 | Low | R-8 |

**4.10 Closeout Plan**

At the end of the project, the following actions will occur:

* The developers team will make a hard copy file of all documents, source code, plans, etc. generated by the team.
* The development ream will store the copy of all material in electronic format on cloud storage.

**4.11 Technical Process Plan**

The Software Project Management Plan will specify the development process model, technical models, tools and techniques that will be used to develop the work products, project infrastructure and product acceptance plan.

**4.12 Process Model**

The XP (extreme Programming) agile process model will be follow during the project implementation.

**4.13 Method, Tools and Technique**

The software project, EKSHEBA HELP DESK, adapts the system on Personal Computer using HTML, PHP, Visual Studio 2012 and MySQL for database management system. Additional tools that will be used are: Notepad++. Google Chrome, Mozilla Firefox,

**4.14 Infrastructure Plan**

The hardware resources are four Intel or AMD Personal Computers running Windows 7 or UBUNTU operating system. The project using software resources are like Notepad ++, XAMPP,

**4.15 Product Acceptance Plan**

Every milestone of the project will be accepted formally by the project manager by signing appropriate acceptance documentation. At the end of every phase the project manager will perform an acceptance test. This may result in additional requests for change and improvements. The project manager will test the final product/application for acceptance.

**4.16 Supporting Process Plan**

The Software Project Management Plan will include the plans for the supporting processes that are part of the software project. These plans include: configuration management plan, verification and validation, software documentation, quality assurance, reviews and audits, problem resolution and subcontractor management.

**4.17 Configuration Management Plan**

All the project deliverables are to be considered as configuration items. The configuration item as well as its file would be named after the document like SOW, SRS and followed by the version number. For example, all the preliminary versions that are submitted to the project manager for review would be named with the abbreviation followed by 0.1, 0.2. After the project manager approves the basic SPMP, this baseline document will be version 1.0 and is distributed to the project members. Informal updates with the project manager will be numbered with 1.1, 1.2, etc. and the next full distribution to the committee would be version 2.0, etc.

**4.18 Verification and Validation Plan**

The Software Project Management Plan for this project shall contain the verification and validation plan for the software project and it shall include tools, techniques and responsibilities for the verification and validation work activities. The verification and validation plan will be part of a separate document and will be maintained accordingly.

**4.19 Documentation Plan**

The IEEE standards would be followed for all documentation purposes. All the documents would be discussed and reviewed with project manager before their baseline versions are issued and distributed to the members of the committee on the due dates.

**4.20 Quality Assurance Plan**

The quality of our project will be maintained and checked by the project manager. He will assure that this project is maintaining the quality.

**4.21 Reviews and Audits Plans**

The IEEE standards would be followed for all documentation purposes. All the documents would be discussed and reviewed with project manager before their baseline versions are issued and distributed to the members of the committee on the due dates.

**4.22 Problem Resolution Plan**

All problems would be resolved informally the developer and the project manager. That is, there is no specific plan. But, The Software Project Management Plan will be updated accordingly should the need for such a plan arises.

**4.23 Subcontractor Management Plan**

The project does not have any plan for managing subcontractors that may contribute work products to the software project.

**4.24 Process Improvement Plan**

After the development, the project will be regularly checked by the project manager and he will suggest the developers if any kind of improvement is needed.