**IBM Interview Application**

**Software Engineering Standards**

**Software Project Management Plan**

**Version 1.0**

Document Number: SPMP-001

**Project Number A1**

**Project Team Members:**

|  |  |  |
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**TABLE OF CONTENTS**

**1. OVERVIEW ................................................................................................................................................................... 5**

**1.1 PROJECT SUMMARY ............................................................................................................................... 5**

**1.2 PURPOSE, SCOPE, AND OBJECTIVES ................................................................................................. 5**

**1.3 ASSUMPTIONS AND CONSTRAINTS .................................................................................................... 5**

**1.4 PROJECT DELIVERABLES ...................................................................................................................... 6**

**1.5 SCHEDULE AND BUDGET SUMMARY ................................................................................................... 6**

**1.6 EVOLUTION OF THE PLAN ...................................................................................................................... 7**

**2 REFERENCES ................................................................................................................................................................ 7**

**3 DEFINITIONS ................................................................................................................................................................. 7**

**4 PROJECT ORGANIZATION ......................................................................................................................................... 8**

**4.1 EXTERNAL INTERFACES ......................................................................................................................... 8**

**4.2 INTERNAL STRUCTURE .......................................................................................................................... 8**

**4.3 ROLES AND RESPONSIBILITIES ........................................................................................................... 8**

**5 MANAGEMENT PROCESSES ..................................................................................................................................... 9**

**5.1 START-UP PLAN ....................................................................................................................................... 9**

**5.1.1 Estimation Plan .................................................................................................................... 9**

**5.1.2 Staffing Plan ......................................................................................................................... 9**

**5.1.3 Resource Acquisition Plan ................................................................................................ 9**

**5.1.4 Training Plan ......................................................................................................................... 10**

**5.2 WORK PLAN ............................................................................................................................................. 10**

**5.2.1 Work Activities ..................................................................................................................... 11**

**5.2.2 Schedule Allocation ............................................................................................................ 11**

**5.2.3 Resource Allocation ........................................................................................................... 11**

**5.3 CONTROL PLAN ...................................................................................................................................... 13**

**5.3.1 Requirement Control and Traceability ........................................................................... 13**

**5.3.2 Schedule Tracking and Adjustment ............................................................................... 13**

**5.3.4 Quality Control ...................................................................................................................... 14**

**5.3.5 Metrics Collection Plan ...................................................................................................... 14**

**5.4 RISK MANAGEMENT PLAN .................................................................................................................... 14**

**5.5 POST IMPLEMENTATION PLAN ............................................................................................................ 14**

**6 TECHNICAL PROCESSES .......................................................................................................................................... 15**

**6.1 PROCESS MODEL ................................................................................................................................... 15**

**6.2 METHODS, TOOLS, AND TECHNIQUES ............................................................................................... 15**

**6.3 INFRASTRUCTURE PLAN ....................................................................................................................... 16**

**6.4 PRODUCT ACCEPTANCE AND MIGRATION PLAN ............................................................................. 16**

**7 SUPPORTING PROCESSES PLANS ........................................................................................................................ 16**

**7.1 CONFIGURATION MANAGEMENT PLAN .............................................................................................. 16**

**7.2 QUALIFICATION (VERIFICATION AND VALIDATION) PLAN .............................................................. 17**

**7.3 DOCUMENTATION (LIBRARY) PLAN .................................................................................................... 17**

**7.4 QUALITY ASSURANCE PLAN ................................................................................................................ 17**

**7.5 REVIEWS AND AUDITS .......................................................................................................................... 17**

**7.6 PROBLEM RESOLUTION PLANS ......................................................................................................... 18**

**7.7 ENVIRONMENT MANAGEMENT PLANS .............................................................................................. 18**

**7.8 PROCESS IMPROVEMENT PLAN ........................................................................................................ 18**

**8. ADDITIONAL PLANS ................................................................................................................................................. 18**

**9 INDEX ........................................................................................................................................................................... 18**

**10 RATIONALE ............................................................................................................................................................... 18**

**11 NOTES ........................................................................................................................................................................ 19**

**12 APPENDICES ............................................................................................................................................................ 19**

**12.1 SCHEDULE TRACKING ........................................................................................................................ 19**

**12.2 DEFECT TRACKING .............................................................................................................................. 20**

**12.3 GANTT CHART/MICROSOFT PROJECT SCHEDULE ...................................................................... 21**

**REVIEW AND APPROVALS**

|  |  |  |  |
| --- | --- | --- | --- |
| **Printer Name and Title** | **Function (Author, Reviewer, Approval)** | **Date** | **Signature** |
| Justin M Pugliese | Pending Approval |  |  |
| Kostaq Papa | Author |  |  |

**REVISION LEVEL**

|  |  |  |
| --- | --- | --- |
| **Date** | **Revision Number** | **Purpose** |
| 05/18/2018 | Version 1.0 | Initial Release |
|  |  |  |

**1. OVERVIEW**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**1.1 Project Summary**

The system provides a friendly web-based platform where a user can manage daily tasks.

**1.2 Purpose, Scope & Objectives**

The purpose of the application is to allow the end user to create, manage and delete tasks using a web interface, through a task management tool.

The purpose of this document is to specify the business and user requirements for the task management system, which include the function and non-functional requirements, and the system requirements. The requirements are analyzed, and test cases are derived for the system.

**1.3 Assumptions and Constraints**

Users should have a basic understanding of using a computer such as navigation through a website using any of the following browsers: Internet Explorer, FireFox, Google Chrome and Safari.

It is assumed that will not be a user authentication process bur rather the user already exists on the database.

**1.4 Project Deliverables**

|  |  |  |
| --- | --- | --- |
| **Project Deliverables** | **Date** | **Format** |
| Project Proposal | May 11, 2018 | Word Document |
| Software Requirement Specification (SRS) | N/A | N/A |
| Software Project Management Plan (SPMP) | May 18, 2018 | Word Document |
| Software Analysis Specification (SAS) | N/A | N/A |
| Software Design Document (SDD) | N/A | N/A |
| Final Design Document | N/A | N/A |
| Implementation and Demo | May 18, 2018 | Live Demo |
| Final Presentation | N/A | PowerPoint |

**1.5 Schedule and Budget Summary**

The following is a brief top-level summary of each major work activity:

|  |  |  |
| --- | --- | --- |
| **Activity** | **Duration (Days)** | **Members** |
| **Project Proposal** | **1** | **Kostaq Papa** |
| **System Requirements Specification** | **N/A** | **N/A** |
| **Software Project Management Plan** | **1** | **Kostaq Papa** |
| **Requirements/Analysis Document** | **N/A** | **N/A** |
| **Design Document** | **N/A** | **N/A** |
| **Final Design w/code** | **N/A** | **N/A** |
| **Implementation Demo** | **1** | **N/A** |

|  |  |
| --- | --- |
| **Item** | **Price** |
| **Salary** | **N/A** |
| **Testing** | **N/A** |
| **Software** | **N/A** |
| **Hardware Equipment** | **N/A** |

**1.6 Evolution of the Plan**

The evolution of the plan will evolve throughout the life cycle if with regards to the schedule of deliverables and tasks. All changes to the document will need to be approved by the team before it is documented. The client may call of the project at any time, thus suspending the project.

**2. REFERENCES**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

SRS Document SRS-001; Team A10; Version 2.0; 10/25/2013

**3. DEFINITIONS**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |
| --- | --- |
| **Terms** | **Definition** |
| User | A user is a task manger of the system |
| Life Cycle Model | A description of steps that should be performed when building a software product |
| Life Cycle | The actual series of steps performed on a specific software product from concept exploration through final retirement |
| Workflow | Activities performed over the entire life cycle |

**4. PROJECT ORGANIZATION**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**4.1 External Interfaces**

The user will have to create a username and password through Django’s back end interface or through the terminal. The system does not provide any external notification method for the tasks that are over-due, or due-today.

**4.2 Internal Structure**

There will be a database management system, which will store information such as user information, tasks created, tasks updated. The database will securely access information. The internet browsers that will be targeted are Firefox, Safari, Google Chrome. The system will be programmed in a Linux Ubuntu environment. The user interface will be programmed in HTML, CSS and JavaScript. The Application Server will be programmed in Python. The back-end tier will use PostgreSQL.

**4.3 Roles and Responsibilities**

One member of the team will be contributing to the documentation, code, and testing phases of the project. The member brings in specialties such as front-end development, back-end development, database design, and user experience design. All team members will communicate with each other regarding any changes, and status updates.

**5. MANAGEMENT PROCESS**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**5.1 Start-Up Plan**

**5.1.1 Estimation Plan**

There was not used an external system to keep track of the milestones, the deliverables of each iteration, and the team meetings. Microsoft Word is used to document and modify the requirement specifications, and the project management plan.

**5.1.2 Staffing Plan**

Currently the development team includes one project manager, one developer who will be programming the project and performing quality assurance. If a team member were to withdraw from the project for any reason, a new person will added to the team through an interview process. All members of the team must have a strong programming background. They must be familiar with one or more object oriented programming languages such as Python, C++, and C#. They must be familiar with database concepts, and web development technologies such as HTML, CSS, and JavaScript.

**5.1.3 Resource Acquisition Plan**

Currently, there is no need to hire any new members to the team.

All the software and hardware is provided by the developer. The personal lap top will hold the code, database, and web servers needed for the project. If any additional resources are needed, Kostaq Papa will be contacted.

**5.1.4 Training Plan**

Necessary courses will be available to members of the team if they are not familiar with any concepts. Courses in Python, C++, object oriented programming, data structures, databases, and web development will be available. As a result, everyone in the team will be able to utilize the concepts involved in a three-tier architecture (user interface, application server, database).

**5.2 Work Plan**

**5.2.1 Work Activities**

1.Project Proposal

1.1 Write and Review Proposal

1.2 Submit Proposal

2. Requirements Specification Document – N/A

2.1. Initial SRS

2.2 Review and correct SRS

2.3 Final SRS

2.4 Submit SRS

3. Software Project Management Plan

3.1 Initial SPMP

3.2 Review and Correct SPMP

3.3 Submit SPMP

4. Requirements/Analysis Document – N/A

4.1 Initial Requirements/Analysis Document

4.2 Review and Correct RAS

4.3 Submit RAS

5. Design Document – N/A

5.1 Initial Design Document

5.3 Review Design Document

5.4 Submit Design Document

6. Final Design – N/A

6.1 Correct and modify initial design document

6.2 Review Design Document

6.3 Submit final design

7. Implementation

7.1 Implement all components of the system

7.2 Conduct unit and product testing

7.3 Submit source code

8. Implementation Demo

8.1 Practice implementation demo

8.2 Conduct demo

**5.2.2 Schedule Allocation**

N/A

**5.2.3 Resource Allocation**

|  |  |  |  |
| --- | --- | --- | --- |
| **WBS** | **Task Name** | **Resource** | **Team Member** |
| **1** | **Project Proposal** |  |  |
| 1.1 | Write and Review Proposal | Microsoft Word | Kostaq Papa |
| 1.2 | Submit Proposal |  | Kostaq Papa |
| **2** | **Requirements Specification Document** |  |  |
| 2.1 | Initial SRS | Microsoft Word | N/A |
| 2.2 | Review and correct SRS | Microsoft Word | N/A |
| 2.3 | Final SRS | Microsoft Word | N/A |
| 2.4 | Submit SRS |  | N/A |
| **3** | **Software Project Management Plan** |  |  |
| 3.1 | Initial SPMP | Microsoft Word  Microsoft Project | Kostaq Papa |
| 3.2 | Review and Correct SPMP | Microsoft Word  Microsoft Project | Kostaq Papa |
| 3.3 | Submit SPMP |  | Kostaq Papa |
| **4** | **Requirements/Analysis Document** |  |  |
| 4.1 | Initial Requirements/Analysis Document | Microsoft Word | N/A |
| 4.2 | Review and Correct RAS | Microsoft Word | N/A |
| 4.3 | Submit RAS |  | N/A |
| **5** | **Design Document** |  |  |
| 5.1 | Initial Design Document | Microsoft Word  UML Tool  E-R Diagram Tool | N/A |
| 5.2 | Review Design Document | Microsoft Word  UML Tool  E-R Diagram Tool | N/A |
| 5.3 | Submit Initial Design |  | N/A |
| **6** | **Final Design** |  |  |
| 6.1 | Correct and modify initial design document | Microsoft Word  UML Tool  E-R Diagram Tool | N/A |
| 6.2 | Review Design Document | Microsoft Word  UML Tool  E-R Diagram Tool | N/A |
| 6.3 | Submit Final Design |  | Kostaq Papa |
| **7** | **Implementation** |  |  |
| 7.1 | Implement all components of the system | Pycharm, Linux Ubuntu | Kostaq Papa |
| 7.2 | Conduct unit and product testing | Doker | Kostaq Papa |
| 7.3 | Submit source code |  | Kostaq Papa |
| **8** | **Implementation Demo** |  |  |
| 8.1 | Practice Implementation Demo |  | Kostaq Papa |
| 8.2 | Conduct Demo |  | N/A |

**5.3 Control Plan**

**5.3.1 Requirement Control and Traceability**

N/A

**5.3.2 Schedule Tracking and Adjustment**

N/A

**5.3.3 Quality Control**

N/A

**5.3.4 Metrics Collection Plan**

N/A

**5.4 Risk Management Plan**

N/A.

**5.5 Post Implementation Plan**

N/A

**6. TECHNICAL PROCESS**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**6.1 Process Model**

N/A

**6.2 Methods, Tools, and Techniques**

The project will be using the object-oriented paradigm. The Unified Modeling Language will be used to derive the classes, their attributes, methods, and cardinality. The application server will be coded using Python. The front-end will be coded using CSS, HTML, and JavaScript.

**6.3 Infrastructure Plan**

N/A

**6.4 Product Acceptance and Migration Plan**

N/A

**7. SUPPORTING PROCESSES PLANS**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**7.1 Configuration Management Plan**

N/A

**7.2 Qualification (Verification and Validation) Plan**

N/A

**7.3 Documentation (Library) Plan**

N/A

**7.4 Quality Assurance Plan**

N/A

**7.5 Reviews and Audits**

N/A

**7.6 Problem Resolution Plans**

N/A

**7.7 Environment Management Plans**

N/A

**7.8 Process Improvement Plan**

N/A

**8. ADDITIONAL PLANS**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

N/A

**9. INDEX**

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N/A

**10. RATIONALE**

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N/A

**11. NOTES**

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N/A

**12. APPENDICES**

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**N/A**