|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Activity name** | **Description** | **Estimation** |
| 1. **Initial** | | | |
| **1.1** | Meeting with group members | First meeting: Introduce with each other | 1 day |
| **1.2** | Project briefing | Introduce & describe the project |
| **1.3** | Install required application | Install & familiar with required software |
| **1.4** | Task & responsibilities assignment | Assign roles & responsibilities to group members |
| 1. **Planning** | | | |
| **2.1** | Project plan | This section will cover the project plan | 1 day |
| **2.1.1** | Background | Introduce & describe the project background |
| **2.1.2** | Scope | Describe scope of the project & project deliverables to provide clear picture to readers |
| **2.1.3** | Document contents | Introduce documents which are included in the development of this project |
| **2.1.4** | Work breakdown structure | List out all project activities that need to be completed in a hierarchy chart | 1 day |
| **2.1.5** | Activity definition & estimation | Define the tasks mentioned in the WBS and estimate the time needed to perform each task |
| **2.1.6** | Gantt chart | Display the project’s overall schedule & keep track of the actual time it takes to accomplish each task | 1 day |
| **2.2.** | Software design document | This section will cover the software design document | 8 days |
| **2.2.1** | System vision | Introduce the system vision of the software | 1 day |
| **2.2.1.1** | Problem background | Introduce the system problem background |
| **2.2.1.2** | System overview | Describe the deliverables, functionality & technology & Data, information, content |
| **2.2.1.3** | Potential benefits | Briefly identify potential benefits from this project |
| **2.2.2** | Requirements | Introduce & describe the requirements | 3 days |
| **2.2.2.1** | User requirements | Describe the User requirements | 1 day |
| **2.2.2.2** | Software requirements | Describe the software requirements | 1 day |
| **2.2.2.3** | Use cases | Identify Use cases and Create Use case diagram | 1 day |
| **2.2.3** | System components & software design | Introduce the system components & software design | 2 days |
| **2.2.3.1** | Software design | Create a high-level design-logical block Diagram | 1 day |
| **2.2.3.2** | System components | Describe functions, Data structures/Data sources & detailed design | 1 day |
| **2.2.4** | User interface design | Describe the tools used for this design stage | 2 days |
| **2.2.4.1** | Structural design | Define the navigational and information structure of the software | 1 day |
| **2.2.4.2** | Visual design | Detailed Visual design such as layout, visual elements, icons, graphics, style, colour, fonts, general screen designs | 1 day |
| 1. **Implementation** | | | |
| **3.1** | Build up a back-end database | Collect spreadsheet data from Kaggle.com and transform into the Database. | 1 day |
| **3.2** | Create user interface | Create the user interface of both Main Menu page and Feature pages through wxPython. | 2 days |
| **3.3** | Create algorithms to sort & output reports for different features | Use python and SQL query to create the algorithms of the analysing like filtering, sorting of required data. Then to create functions to output Charts and reports through the analysed data. | 4 days |
| **3.4** | Apply validation rules in all features | Apply logic conditions to all input/selection fields | 1 day |
| **3.5** | User authentication | Set up security user database for guests and developers. | 1 day |
| **3.6** | Create user comment section | Create a page for user to comment and will upload to the database. | 1 day |
| **3.7** | Revision | Create clearly identified revision codes which continue in sequence from the first issue to the end. | 2 days |
| **3.8** | Testing at the end to check out the bugs | Apply testing conditions and different scenarios of actual applications to test the app. | 2 days |
| 1. **Testing** | | | |
| **4.1** | Unit testing | Create individual tests for every functionality in the application | 14 days (run simultaneously with the implementation) |
| **4.2** | Requirement acceptance testing | Analyse and create a testing requirement document. Set up a verification checklist for the test execution. | 3 days |
| 1. **Closure** | | | |
| **5.1** | Deployment | Finalizing the application and deploying it | 1 day |
| **5.2** | Create user manual | Create user manual | 1 day |
| **5.3** | Create data analysis report | Analyses the data over a 12-month period & create a report | 1 day |
| **5.4** | Reports & documentation | Create and finalize all reports & documentation | 2 days |
| **5.5** | Presentation | Present the application | 1 day |
| **5.6** | Lesson learned | Reflects both positive and negative experience during the development process | 1 day |