# Technical feasibility Issues Report

Hardware Resources

|  |  |  |  |
| --- | --- | --- | --- |
| Resource | Reason | Available | Alternative |
| Laptop or desktop computers | Hardware that is to be able to use software tools to develop apps | Yes | N/A |
| Internet access | Hardware that will help team get tools , research and test app | Yes | N/A |
| Mobile phones | Hardware that will be used to test apps | Yes | N/A |

All members of the team already have or are able to get access to these hardware resources .

|  |  |  |  |
| --- | --- | --- | --- |
| Resource | Reason | Available | Alternative |
| Github for app storage and version control tools | Software that securely stores our app and allows for version control | Yes | N/A |
| Microsoft teams for software for online team meetings | Software for team communication | Yes | N/A |
| Firebase for online cloud databases | Software that stores data and allows interaction between user and backend. Let’s data be added ,removed or edited | Yes | N/A |
| Android studio for mobile app development tools | Software used to create apps for mobile phones | Yes | N/A |
| Visual Studio community edition and Visual Studio Code for website app development tools | Software used to create websites | Yes | N/A |
| Microsoft Project for Project management software | Software will be used to collaborate and manage software with team members | Yes | N/A |

All of the resources above are easy to access and free to use.

# **Economic Feasibility Issues Report**

The table provided is subject to change, over the period of the development process of the solution, in terms of employee allocation, hourly rates and hours required to reach each milestone of the development progression.

Hourly rates are based on the task each individual is responsible for, as well as current hourly rates for entry-level software engineers in South Africa as of April 2021, averaging from R100 to R250 per hour (The School of IT International, 2021), with the exception of the tasks specified under “Introduction and Identification” and “NGO Identification” as these were meetings held to discuss and plan for the appropriate topics.

Estimated hours for each individual task and each collection of tasks that have been presented in the table are based on the most pessimistic values of hours estimated in the documentation’s PERT chart, in the event of unforeseen delays, time allocations for tasks will be rounded up to the nearest hour, including tasks that have less than an hour allocated to them.

Included in the table are time allocations that apply to the tasks, and collective time allocations where there is more than one team member assigned to the task where employees will work either parallel to one another on the task or on the same task but in individual sections, demonstrated in figure 1 and figure 2, as an estimate at the current time of writing this documentation.

**Team Members Working Parallel**

|  |  |  |
| --- | --- | --- |
| Task | Team Member #1 | 3 hrs |
| Team Member #2 |
| Team Member #3 |

Figure 1: Working Parallel

**Team Members Working Individually for the Same Task**

|  |  |  |
| --- | --- | --- |
| Task | Team Member #1 | 1 hr |
| Team Member #2 | 2 hrs |
| Team Member #3 | 1 hr |

# **Annexure**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Details | | Cost Estimates | | |
| Task: | **Team Member(s):** | **Hours:** | **Hourly Rate:** | **Total:** |
| Introductions and Identification | **All** | **1** |  |  |
| Review Given Task | Chris | 0.5 hrs  (~30 minutes) |  |  |
| Juwairya |  |  |
| Saiyen |  |  |
| Joshua |  |  |
| Azhar |  |  |
| Discuss Potential NGOs | Chris | 0.5 hrs  (~30 minutes) | R100/hr | R100.00 |
| Juwairya | R100/hr | R100.00 |
| Saiyen | R100/hr | R100.00 |
| Joshua | R100/hr | R100.00 |
| Azhar | R100/hr | R100.00 |
| NGO Identification | **All** | **1 hr** |  |  |
| Confirm NGO | Chris | 0.5 hrs  (~30 minutes) |  |  |
| Juwairya |  |  |
| Saiyen |  |  |
| Joshua |  |  |
| Azhar |  |  |
| Discuss Potential Solutions | Chris | 0.5 hrs  (~30 minutes) | R100/hr | R100.00 |
| Juwairya | R100/hr | R100.00 |
| Saiyen | R100/hr | R100.00 |
| Joshua | R100/hr | R100.00 |
| Azhar | R100/hr | R100.00 |
| Create Project Plan | **All** | **5 hrs** |  |  |
| Review Project Plan Components | Chris | 0.5 hrs  (~30 minutes) | R100/hr | R100.00 |
| Juwairya | R100/hr | R100.00 |
| Saiyen | R100/hr | R100.00 |
| Joshua | R100/hr | R100.00 |
| Azhar | R100/hr | R100.00 |
| Identify Milestones and Deliverables | Juwairya | 0.5 hrs  (~30 minutes) | R120/hr | R120.00 |
| Create a Feasibility Report | Juwairya | 1 hr | R120/hr | R120.00 |
| Saiyen | R120/hr | R120.00 |
| Chris | R120/hr | R120.00 |
| Create Project Schedule | Chris | 0.5 hrs  (~30 minutes) | R120/hr | R120.00 |
| Create Work Breakdown Structure | Azhar | 0.5 hrs  (~30 minutes) | R120/hr | R120.00 |
| Create a Risk Management Analysis | Joshua | 1 hr | R120/hr | R120.00 |
| Azhar | R120/hr | R120.00 |
| Juwairya | R120/hr | R120.00 |
| Create Technical and Economic Feasibility Reports | Saiyen | 0.5 hrs | R120/hr | R120.00 |
| Chris | 0.5 hrs | R120/hr | R120.00 |
| Create a Requirements Analysis | **All** | **5 hrs** |  |  |
| Review Analysis Criteria | Chris | 0.5 hrs  (~30 minutes) | R100/hr | R100.00 |
| Juwairya | R100/hr | R100.00 |
| Saiyen | R100/hr | R100.00 |
| Joshua | R100/hr | R100.00 |
| Azhar | R100/hr | R100.00 |
| Identify Functional Requirements | Chris | 1 hr | R120/hr | R120.00 |
| Joshua | R120/hr | R120.00 |
| Develop Use Case Diagrams | Azhar | 1 hr | R140/hr | R140.00 |
| Develop a Logical System | Saiyen | 2 hrs | R130/hr | R260.00 |
| Juwairya | R130/hr | R260.00 |
| Create a Systems Design Documentation | **All** | **5 hrs** |  |  |
| Review System Design Criteria | Chris | 0.5 hrs  (~30 minutes) | R100/hr | R100.00 |
| Juwairya | R100/hr | R100.00 |
| Saiyen | R100/hr | R100.00 |
| Joshua | R100/hr | R100.00 |
| Azhar | R100/hr | R100.00 |
| Design Application Architecture | Juwairya | 1.5 hrs  (~90 minutes) | R125/hr | R250.00 |
| Chris | R125/hr | R250.00 |
| Design Solution GUI Concept | Joshua | 1.5 hrs  (~90 minutes) | R125/hr | R250.00 |
| Azhar | R125/hr | R250.00 |
| Design Database Concept | Saiyen | 1 hr | R180/hr | R180.00 |
| Develop NGO Solution | **All** | **16 hrs** |  |  |
| Review Final Concepts | Chris | 1 hr | R100/hr | R100.00 |
| Juwairya | R100/hr | R100.00 |
| Saiyen | R100/hr | R100.00 |
| Joshua | R100/hr | R100.00 |
| Azhar | R100/hr | R100.00 |
| Design Graphical User Interface | Joshua | 2 hrs | R170/hr | R340.00 |
| Azhar | R170/hr | R340.00 |
| Create and Populate Database | Saiyen | 2 hrs | R170/hr | R340.00 |
| Develop Data Input Components | Juwairya | 1.5 hrs | R170/hr | R340.00 |
| Saiyen | 1.5 hrs | R170/hr | R340.00 |
| Azhar | 1.5 hrs | R170/hr | R340.00 |
| Develop Application Functions | Chris | 3 hrs | R170/hr | R510.00 |
| Juwairya | 3 hrs | R170/hr | R510.00 |
| Develop User Support | Azhar | 2.5 hrs | R140/hr | R350.00 |
| Joshua | R140/hr | R350.00 |
| Presentation Preparation | **All** | **3 hrs** |  |  |
| Review Presentation Criteria | Chris | 0.5 hrs  (~30 minutes) | R100/hr | R100.00 |
| Juwairya | R100/hr | R100.00 |
| Saiyen | R100/hr | R100.00 |
| Joshua | R100/hr | R100.00 |
| Azhar | R100/hr | R100.00 |
| Implement Solution Prototype |  | 0.5 hrs  (~30 minutes) |  |  |
| Mock Presentation | Chris | 1 hr | R100/hr | R100.00 |
| Juwairya | R100/hr | R100.00 |
| Saiyen | R100/hr | R100.00 |
| Joshua | R100/hr | R100.00 |
| Azhar | R100/hr | R100.00 |
| Presentation | Chris | **1 hr** | R100/hr | R100.00 |
| Juwairya | R100/hr | R100.00 |
| Saiyen | R100/hr | R100.00 |
| Joshua | R100/hr | R100.00 |
| Azhar | R100/hr | R100.00 |
| Finalise System and Application | **All** | **3 hrs** |  |  |
| Self-Evaluation Tasks | Chris | 0.5 hrs  (~30 minutes) | R100/hr | R100.00 |
| Juwairya | R100/hr | R100.00 |
| Saiyen | R100/hr | R100.00 |
| Joshua | R100/hr | R100.00 |
| Azhar | R100/hr | R100.00 |
| Implement Recommendations from Feedback | Joshua (GUI) | 1.5 hrs  (~90 minutes) | R150/hr | R300.00 |
| Azhar (GUI) | R150/hr | R300.00 |
| Saiyen (Database) | 1.5 hrs  (~90 minutes) | R150/hr | R300.00 |
| Juwairya (Functionality) | 2 hrs | R150/hr | R300.00 |
| Chris (Functionality) | R150/hr | R300.00 |
| Debug and Finalise | Joshua (GUI) | 1.5 hrs  (~90 minutes) | R160/hr | R320.00 |
| Azhar (GUI) | R160/hr | R320.00 |
| Saiyen (Database) | 1.5 hrs  (~90 minutes) | R160/hr | R320.00 |
| Juwairya (Functionality) | 2 hrs | R160/hr | R320.00 |
| Chris (Functionality) | R160/hr | R320.00 |
| Final Submission | **All** | **1 hr** |  |  |
| Demonstrate Final Implementation | Chris | 0.5 hrs  (~30 minutes) | R100/hr | R100.00 |
| Juwairya | R100/hr | R100.00 |
| Saiyen | R100/hr | R100.00 |
| Joshua | R100/hr | R100.00 |
| Azhar | R100/hr | R100.00 |
| Submit Documentation and Software | Chris | 0.5 hrs  (~30 minutes) | R100/hr | R100.00 |
| Juwairya | R100/hr | R100.00 |
| Saiyen | R100/hr | R100.00 |
| Joshua | R100/hr | R100.00 |
| Azhar | R100/hr | R100.00 |
| Total Wages: |  | | | R16260.00 |