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| --- | --- | --- | --- | --- | --- | --- |
|  | User Story | Tasks | Estimated size (sp) | Estimated time (h) | Estimated costs (£) | Actual costs (£) |
| Sprint 1 | 4.1 Overview of prisoner movement | 1. Logging prisoners leaving and entering | 3 | 4 | 200 |  |
| 2. Send microbit data to server | 3 | 2 | 100 |  |
| 3. Pull server data to frontend | 3 | 2 | 100 |  |
| 4. Display data on frontend | 3 | 2 | 100 |  |
|  | 4.2 Overview of building/zone occupancy | 1. Get data from server | 1 | 1 | 50 |  |
| 2. Process and perform calculations | 1 | 1 | 50 |  |
| 3. Display data on the frontend | 1 | 1 | 50 |  |
|  | 4.3 Overview of environment sensor | 1. Gather sensor readings | 2 | 2 | 100 |  |
| 2. Send Microbit data to server | 1 | 1 | 50 |  |
| 3. Display data on frontend | 2 | 1 | 50 |  |
|  | 4.4 Overview of locked doors | 1. Motion detection | 3 | 2 | 100 |  |
| 2. Alarm system | 4 | 4 | 200 |  |
| 3. Send microbit data to server | 1 | 2 | 100 |  |
| 4. Display data from server | 2 | 2 | 100 |  |

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|  | User Story | Tasks | Estimated size (sp) | Estimated time (h) | Estimated costs (£) | Actual costs (£) |
| Sprint 2 | 5.1 Range of historical data analytics | 1. Alter database for history records | 1 | 1 | 200 | 50 |
| 2. Implement middleware to enable history addition | 3 | 2 | 100 | 150 |
| 3. Create UI | 2 | 2 | 100 | 150 |
| 4. Get data from server | 1 | 1 | 100 | 50 |
|  |  | 5. Process data into correct form | 3 | 2 |  | 150 |
|  |  | 6. Display data in visualisation | 4 | 3 |  | 250 |
|  | 5.2 Multiple platforms (web & app) |  |  |  |  |  |
|  |  |  |  |  |
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|  | 5.3 Warnings & Mitigations | 1. Check for set outlier values from received signals | 2 | 1 | 50 | 50 |
| 2. Store warning in database table | 1 | 1 | 50 | 100 |
| 3. Frontend pulls from database and displays warning | 3 | 2 | 100 | 150 |
|  |  | 4. Base logger sends mitigatory signal to door microbits to lock | 2 | 2 | 100 | 50 |
|  | 5.4 Telegram Bot | 1. Posts periodic environment data | 3 | 2 | 100 | 150 |
| 2. Display warnings from the system | 2 | 2 | 100 | 100 |
| 3. Pull environment data on request | 3 | 3 | 150 | 100 |
|  | User Data & Movement History | 1. Alter database for user types | 3 | 2 |  | 100 |
|  |  | 2. Register system to add new users | 4 | 4 |  | 350 |
|  |  | 3. Get data from the server | 3 | 1 |  | 50 |
|  |  | 4. Display records | 2 | 1 |  | 100 |
|  |  | 5. Enable sorting and searching | 2 | 2 |  | 100 |
|  |  |  |  |  |  |  |
|  | User  Register page |  |  |  |  |  |
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|  | User Story | Tasks | Estimated size (sp) | Estimated time (h) | Estimated costs (£) | Actual costs (£) |
| Sprint 3 | 6.1 Ability to transfer between domains |  |  |  |  |  |
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|  |  |  |  |  |
|  | Reports page | 1. Retrieve data from a database | 2 | 2 |  | 100 |
|  |  | 2. Process data and format | 4 | 4 |  | 200 |
|  |  | 3. Display data in visualisation | 3 | 3 |  | 250 |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | Super User Login |  |  |  |  |  |
|  | Rooms page |  |  |  |  |  |
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|  | 6.2 All previous Sprint 4 functionality transferred |  |  |  |  |  |
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|  | 6.3 All previous Sprint 5 functionality transferred |  |  |  |  |  |
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