**Table 1: Timeline**

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| --- | --- | --- | --- |
| Task | Start Date | End Date | Milestone |
| Research Spotify API integration | 2024-1-07 | 2024-10-14 | Milestone 1 |
| Design UI for queue system | 2024-10-21 | 2024-11-04 | Milestone 2 |
| Develop backend logic for fair queue | 2024-11-05 | 2025-1-16 | Milestone 3 |
| Test queue algorithms for fairness | 2025-1-17 | 2025-1-24 | Milestone 4 |
| Integrate sorting and randomization | 2025-1-27 | 2025-2-2 | Milestone 5 |
| Deploy web application | 2025-2-3 | 2025-2-9 | Milestone 6 |
| Final user testing and refinements | 2025-2-10 | 2025-2-17 | Final milestone |

**Table 2:**

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| Task | Estimated Hours | Responsible Member |
| Research Spotify API integration | 3 hours | Trysten Giorgione |
| Design UI for queue system | 5 hours | Trysten Giorgione |
| Develop backend logic for fair queue | 15 hours | Trysten Giorgione |
| Test queue algorithms for fairness | 7-10 hours | Trysten Giorgione |
| Integrate sorting and randomization | 10 hours | Trysten Giorgione |
| Document API calls and responses | 3 hours | Trysten Giorgione |
| User authentication system | 10 hours | Trysten Giorgione |
| Validate inputs and handle edge cases | 5 hours | Trysten Giorgione |
| Set up continuous integration | 6 hours | Trysten Giorgione |
| Deploy web application | 5 hours | Trysten Giorgione |
| Full system performance testing | ? hours | Trysten Giorgione |
| Obtain feedback and refine system | ? hours | Trysten Giorgione |