**Assignment #6 — Milestones, Timeline, and Effort Matrix**

Course: Senior Design (Fall 2025) • Project: Adaptabrawl — 2D Multiplayer Fighting Game

**Team Members**

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**Milestones & Deliverables**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | Milestone / Deliverable | Type | Date | Explanation |
| C1 | Team Contract signed | Completed | 2025-09-15 | Roles, norms, and weekly cadence agreed (planning Wed; playtest Fri). |
| C2 | Design Diagrams submitted (A4) | Completed | 2025-09-28 | Level 1–3 diagrams for inputs/outputs, subsystems, and netcode paths. |
| C3 | Tasklist finalized (A5) | Completed | 2025-09-29 | 20 project-specific tasks with owners and verbs, ~5 per teammate. |
| C4 | Project Description drafted | Completed | 2025-09-25 | Problem framing, vision, MVP→Beta scope, and tech stack thesis. |
| M0 | Repo bootstrap | Planned | 2025-09-20 | Unity LTS selection short-list, Git LFS, basic CI smoke build. |
| M1 | Engine lock (Unity LTS) | Planned | 2025-10-10 | Decide engine; freeze versions and architecture sketch. |
| M2 | Core combat prototype (offline) | Planned | 2025-10-24 | Movement, attacks, block/parry; FSM + hit/hurtboxes working. |
| M3 | Status effects v1 | Planned | 2025-10-31 | Poison, heavy-attack, low-HP with readable UI timers/icons. |
| M4 | Adaptive conditions v1 | Planned | 2025-11-07 | Stage/weather modifiers wired to disclosed stat/move changes. |
| M5 | Netcode baseline + lobbies | Planned | 2025-11-21 | Host-auth, client prediction, room codes via Relay/Lobby. |
| M6 | Online combat parity | Planned | 2025-12-01 | Online matches mirror offline behavior; determinism audit pass. |
| M7 | Usability & perf pass | Planned | 2025-12-08 | Controller remap, accessibility, VFX budgets; 60 FPS target. |
| M8 | S1 Vertical Slice build | Planned | 2025-12-12 | Two fighters, one stage, online 1v1; playtest + submission. |

**Table 1.1 — Project Timeline (Tasks Only)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Task # | Task (short) | Owner | Start | End | Status | Milestone Links |
| 1 | Identify online model & session flow | KS | 2025-10-01 | 2025-10-06 | Planned |  |
| 2 | Design state updates & prediction flow | KS | 2025-10-03 | 2025-10-10 | Planned | M1 |
| 3 | Implement Lobby/Relay + room codes | KS | 2025-10-10 | 2025-10-24 | Planned | M1, M2 |
| 4 | Movement prediction & correction | KS | 2025-10-17 | 2025-10-31 | Planned | M2, M3 |
| 5 | Online stress tests (RTT/jitter/loss) | KS | 2025-11-01 | 2025-11-21 | Planned | M4, M5 |
| 6 | Combat flow + cancel & buffers | SS | 2025-10-01 | 2025-10-08 | Planned |  |
| 7 | Hit/hurtbox & damage system | SS | 2025-10-08 | 2025-10-18 | Planned | M1 |
| 8 | Two starter fighters (movesets) | SS | 2025-10-15 | 2025-10-29 | Planned | M2 |
| 9 | Status/Condition system v1 | SS | 2025-10-22 | 2025-11-01 | Planned | M2, M3 |
| 10 | Frame data tuning + playtests | SS | 2025-11-01 | 2025-11-14 | Planned | M4 |
| 11 | HUD: HP bars + status timers | KSh | 2025-10-10 | 2025-10-20 | Planned | M1 |
| 12 | Lobby & post-match UI flows | KSh | 2025-10-20 | 2025-10-31 | Planned | M2, M3 |
| 13 | Input maps + in-game rebind | KSh | 2025-10-25 | 2025-11-05 | Planned | M3 |
| 14 | Readable VFX/SFX palettes | KSh | 2025-11-01 | 2025-11-15 | Planned | M4 |
| 15 | Usability/accessibility tests | KSh | 2025-11-15 | 2025-12-05 | Planned | M5, M6 |
| 16 | CI: Win64 build on PR | YB | 2025-10-05 | 2025-10-12 | Planned | M1 |
| 17 | Telemetry/exporter (opt-in) | YB | 2025-10-20 | 2025-11-03 | Planned | M2, M3 |
| 18 | Training mode + hitbox viewer | YB | 2025-11-03 | 2025-11-17 | Planned | M4 |
| 19 | Perf profiling & budgets | YB | 2025-11-10 | 2025-12-01 | Planned | M5, M6 |
| 20 | Docs/controls/troubleshooting | YB | 2025-12-01 | 2025-12-10 | Planned | M6, M7 |

**Table 1.2 — Project Timeline (Milestones Only)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Task # | Task (short) | Owner | Start | End | Status | Milestone Links |
| M0 | [Milestone] Repo bootstrap | — | 2025-09-20 | 2025-09-20 | Target | — |
| M1 | [Milestone] Engine lock (Unity LTS) | — | 2025-10-10 | 2025-10-10 | Target | — |
| M2 | [Milestone] Core combat prototype (offline) | — | 2025-10-24 | 2025-10-24 | Target | — |
| M3 | [Milestone] Status effects v1 | — | 2025-10-31 | 2025-10-31 | Target | — |
| M4 | [Milestone] Adaptive conditions v1 | — | 2025-11-07 | 2025-11-07 | Target | — |
| M5 | [Milestone] Netcode baseline + lobbies | — | 2025-11-21 | 2025-11-21 | Target | — |
| M6 | [Milestone] Online combat parity | — | 2025-12-01 | 2025-12-01 | Target | — |
| M7 | [Milestone] Usability & perf pass | — | 2025-12-08 | 2025-12-08 | Target | — |
| M8 | [Milestone] S1 Vertical Slice build | — | 2025-12-12 | 2025-12-12 | Target | — |

**Table 2 — Effort Matrix (Percent of Effort per Task)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Task # | Task (short) | KS | SS | KSh | YB |
| 1 | Identify online model & session flow | 65% | 10% | 10% | 15% |
| 2 | Design state updates & prediction flow | 65% | 10% | 10% | 15% |
| 3 | Implement Lobby/Relay + room codes | 65% | 10% | 10% | 15% |
| 4 | Movement prediction & correction | 65% | 10% | 10% | 15% |
| 5 | Online stress tests (RTT/jitter/loss) | 65% | 10% | 10% | 15% |
| 6 | Combat flow + cancel & buffers | 10% | 65% | 15% | 10% |
| 7 | Hit/hurtbox & damage system | 10% | 65% | 15% | 10% |
| 8 | Two starter fighters (movesets) | 10% | 65% | 15% | 10% |
| 9 | Status/Condition system v1 | 10% | 65% | 15% | 10% |
| 10 | Frame data tuning + playtests | 10% | 65% | 15% | 10% |
| 11 | HUD: HP bars + status timers | 10% | 10% | 65% | 15% |
| 12 | Lobby & post-match UI flows | 10% | 10% | 65% | 15% |
| 13 | Input maps + in-game rebind | 10% | 10% | 65% | 15% |
| 14 | Readable VFX/SFX palettes | 10% | 10% | 65% | 15% |
| 15 | Usability/accessibility tests | 10% | 10% | 65% | 15% |
| 16 | CI: Win64 build on PR | 15% | 10% | 10% | 65% |
| 17 | Telemetry/exporter (opt-in) | 15% | 10% | 10% | 65% |
| 18 | Training mode + hitbox viewer | 15% | 10% | 10% | 65% |
| 19 | Perf profiling & budgets | 15% | 10% | 10% | 65% |
| 20 | Docs/controls/troubleshooting | 15% | 10% | 10% | 65% |

Prepared on 2025-10-02.