

Product Backlog — CBL Java Game

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Advanced Topics (chosen)

- 1) Collision Detection & Hitboxes - entity collision using axis-aligned bounding boxes.
- 2) Finite-State Boss - a small state machine governing boss behavior (Idle, Patrol/Chase, Attack Recover), including telegraphed attacks and cooldowns.

Backlog Items

Game Window & Loop	1	Stable window with fixed timestep.
Start Screen → Game Screen	1	Clean transition to gameplay.
Player Movement (WASD/Arrows)	1	Smooth movement; respects bounds.
World Rendering (Background / Tiles)	1	Tiles and background draw consistently.
Basic Collision (Player↔World)	1	Walls block player movement.
Attack System (basic)	1	Timed hitbox with cooldown.
Enemy Entity (generic)	1	Simple enemy AI with HP.
HP / Damage / Death Flow	1	Damage updates HP; game over.
Boss (FSM AI: Idle/Chase/Attack)	1	Boss switches states; telegraphs.
Collision (Attacks↔Enemies)	1	Hitbox overlap applies damage.
Pause/Resume	2	Freeze and unfreeze simulation.
Secondary Attack / Charged Attack	2	Alternative attack, distinct timing.
Items / Pickups (Heal)	2	Collect to restore health.
Audio Cues (Attack/Hit)	3	Sounds for actions and hits.
Basic Settings Panel	3	Toggle volume or keybinds.
Particles / Screen Shake	3	Visual feedback on hits.
Level/Room Transition	3	Enter new area cleanly.