

Backpack

At its core, "Backpack Battles" (*the game* from now on) is a backpack management game. In-between rounds, the player has a chance to upgrade their inventory of items by purchasing items from a shop and arranging them strategically in their "backpack".

The focus of the demo is the backpack management/shop screen. The async PVP aspect and item synergies will not be part of this spec.

On this screen, the player is able to buy and sell items, reroll the shop inventory, move items between the backpack and the stash (storage).

The screen is divided into several distinct interactive areas: backpack, shop, stash, character stats, drop-to-sell, and a drop-to-stash area that doubles down as tooltip area.



Items

- have a grid representation, ranging from 1x1 to 4x3, which is the space they occupy when placed in the "backpack"
- in *the game*, items have a "synergy" grid, which is a mechanic that activates various effects based on item proximity and other conditions. For simplicity, the demo *does not* cover this .
- when dragged, can be rotated 90deg clockwise (on right click)
- have a
 - cost
 - one or more types - weapon, food, pet, helmet, boots, etc.
 - rarity - common, rare, epic, legendary, unique
 - effects - not covered in the demo
- weapons have damage, stamina, accuracy, cooldown
- when hovering an items, its details should be shown in a tooltip

Shop

- is a grid of 5 items
- shop items have their price displayed next to them
- randomly, items can be offered at discounted prices - both the original and discounted prices are visible but the discounted one is more prominent and looks like the obvious current price.
- has a way to re-roll the current offering (for 1 Gold)
- ~~in the game, the item is returned to shop and not considered bought if it wasn't successfully placed in the backpack or storage.~~ For simplicity, an item should be considered bought when picking it from the shop

Backpack

- is a 9x9 grid of slots
- slots can be in an active or inactive state
- items cannot be placed in inactive slots (unless it is a special Bag item, more on that later)
- items cannot be placed if they overlap 2 or more items (unlike *the game* - where items are sent to the stash)
- "Bag" items can be placed in inactive slots to activate them
- for simplicity, `bags` will only be placed if all the slots they try to occupy are empty (unlike *the game* where bags replace other bags)
- for simplicity, `bags` can only be moved by interacting with any of it's shape slots (unlike in the game where graphic fills the gaps beyond the shape) and only if they are empty ()
- for simplicity, `bags` cannot be moved if there are any items in their slots. *Their slots* in this context means *Backpack slots* marked as active by this `bag`
- when placing an item, if its shape intersects another item in the grid, the items will be swapped; if its shape intersects 2 or more, the action is considered illegal (show different visual, play SFX)

Storage

- in *the game*, items in the storage have physics bodies attached tot them, for simplicity we will be representing the storage as a **Dense List** of 1x1 items
- the storage should have enough room for about 40 items
- a user should be able to drop items in storage by dragging them into storage or the area between "backpack" and "shop"
- items in storage will have their orientation reset to default (N)

Character sheet

- should display
 - player name - placeholder
 - gold - should update on change, should have an appropriate visual when gaining/spending money
 - health - placeholder
 - stamina consumption - should update when "backpack" content changes

Sell area

- is an area where the player can drag items to sell them
- should have a visual indicator when dragging an item over, meaning that the item can be dropped to sell
- should display the amount to be returned, which is half the items value, rounded down
- upon selling an item, should play an SFX and update player gold

Other elements not covered in demo

- settings button
- recipes button
- start battle button