GROUP NAT20

Trails of the Abyss

CSS481 - Special Topics in Computer Engineering Fundamentals I

Narrative

Setting

The dungeon is divided into 5 stages, each guarded by monsters.

Objective

Defeat the monsters in each stage to clear the dungeon.

Characters

----------Heros----------
Knight/Archer/Barbarian/
Mage/Sorcerer

-------Monsters-------
Each stage has unique monster types.

Game Rules

World Rules

- The world consists of 5 stages, each representing a unique realm.

- Stages increase in difficulty.

- Players can only move forward; no revisiting cleared stages.

- Death of all characters ends the game.

Game Rules

Gameplay Rules

- Players control a team of 3 heroes.

- Combat is turn-based:
  - Player and monster teams alternate actions.
  - Actions include using weapons/spells/items and escaping.

- Players can buy items in the shop after each stage.

- Health and mana management is critical.

Gameplay Mechanics

Character Selection:

- Players select 3 heroes to form a team before the game begins.
- Turn order is based on the team lineup.

Gameplay Mechanics

Stage Progression:

- Defeat all monsters in a stage to progress to the next.
- Randomized monster lineup per stage.

Gameplay Mechanics

Combat System:

- Actions: Weapon, Spell, Attack, Escape.
- Turns alternate between player characters and monsters.
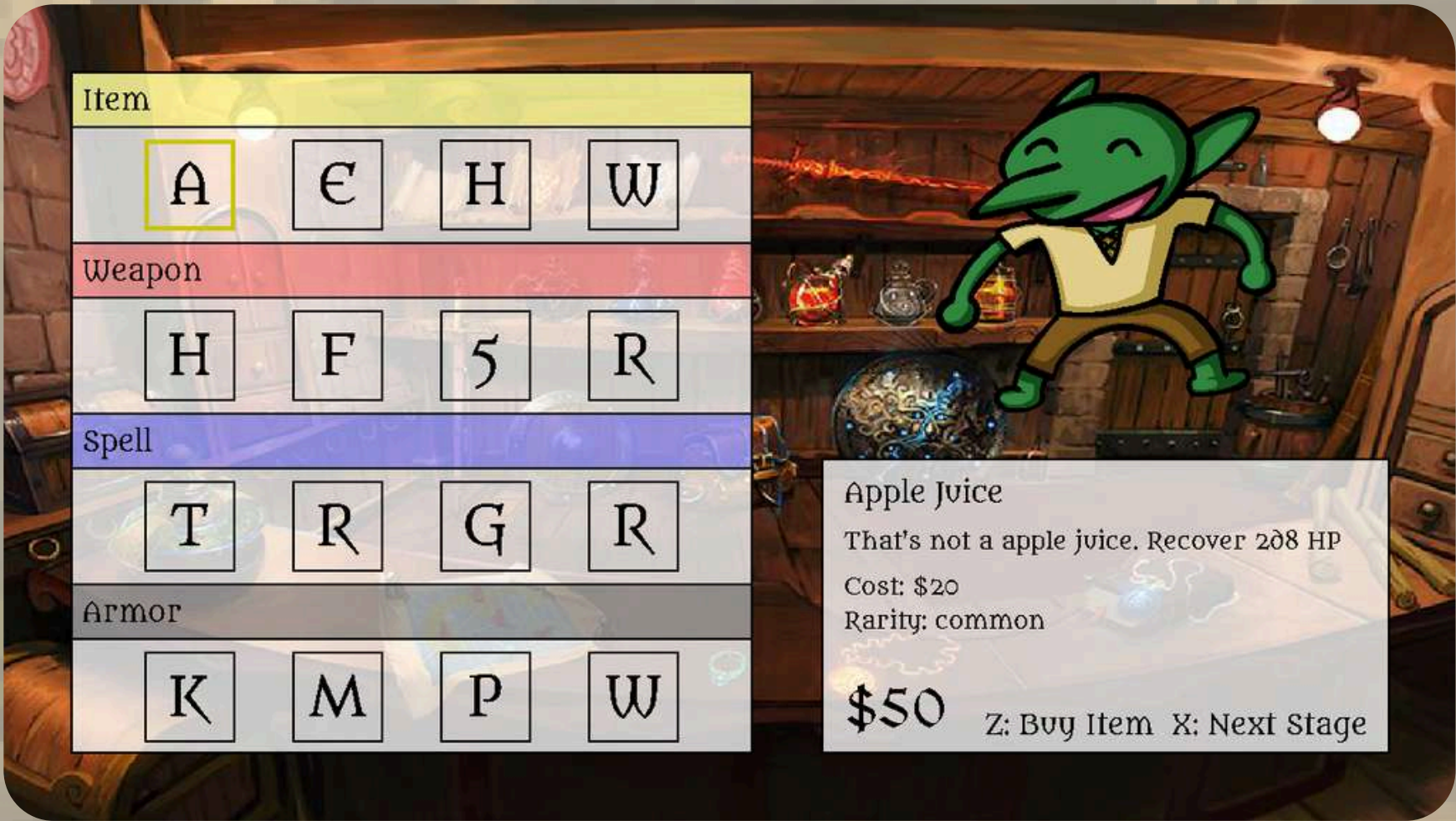
Hero1 HP: 100 MP: 50

| WEAPON | SPELL |
| ITEM | ESCAPE |

Gameplay Mechanics

Shop System:

- Items include health potions, mana potions, and buffs.

- Coins earned from battles can be spent in the shop.
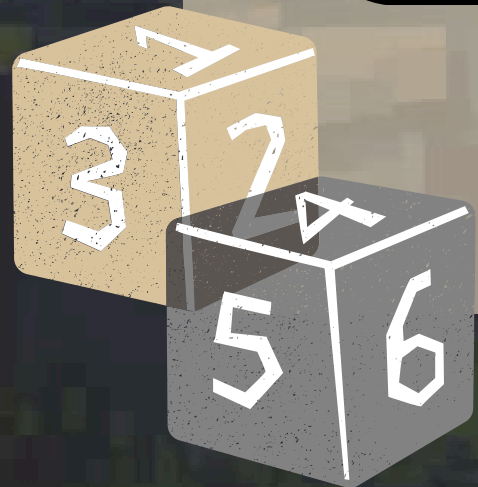
Randomization

Enermies

Randomly selected from a stage-specific pool.

Shop

Items available for purchase are randomized.

Replayability

Randomized elements ensure each playthrough feels unique.

Main Menu

Trails of the Abyss

Press Enter

Characters Selection

Select your Character (left right)

Press Enter to Select

Archer

STR: 6 INT: 4 CON: 6
DEF: 6 ACC: 8 CHA: 5

Stages & Progression

Stage 1 Easy → Stage 2 Moderate

Stage 3 Hard → Stage 4 Challenging

Stage 5 Final Boss

Stages & Progression

STAGE

COIN: 200
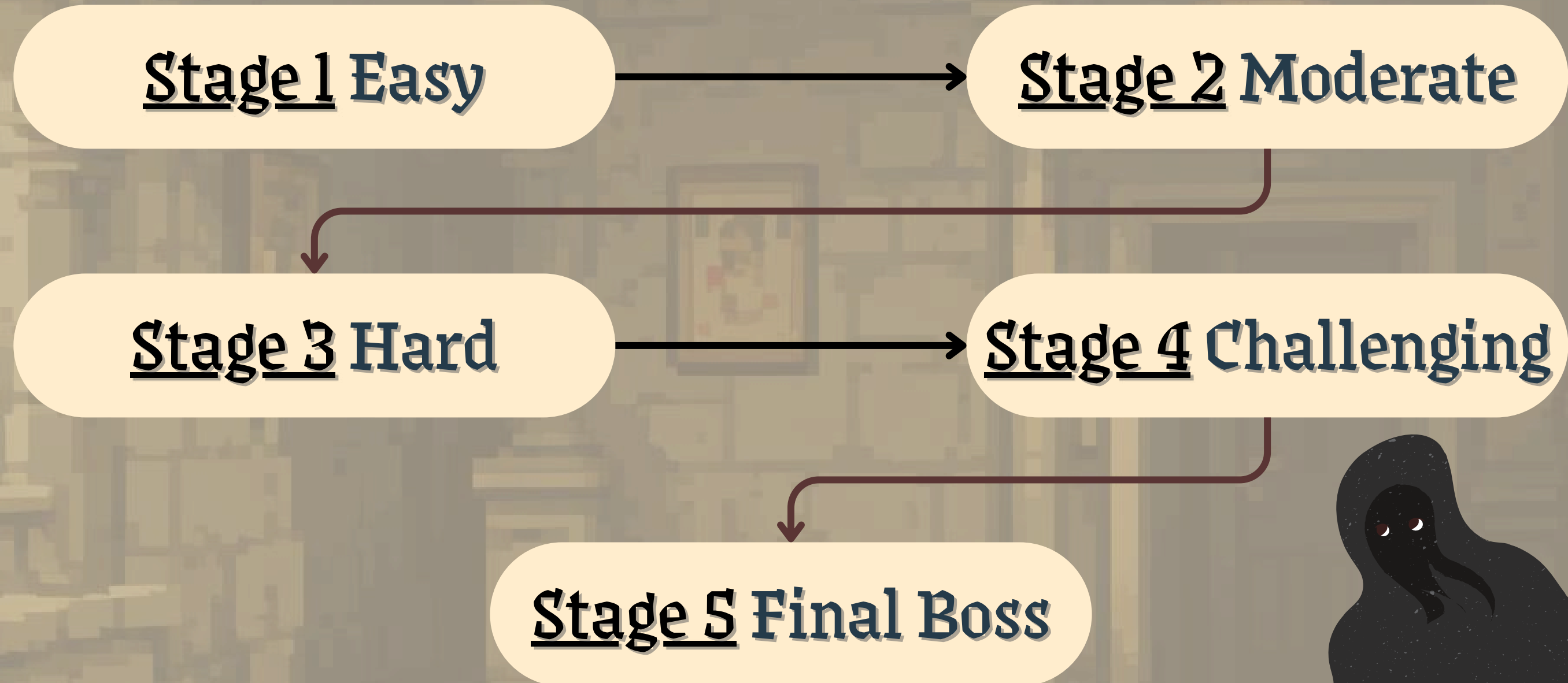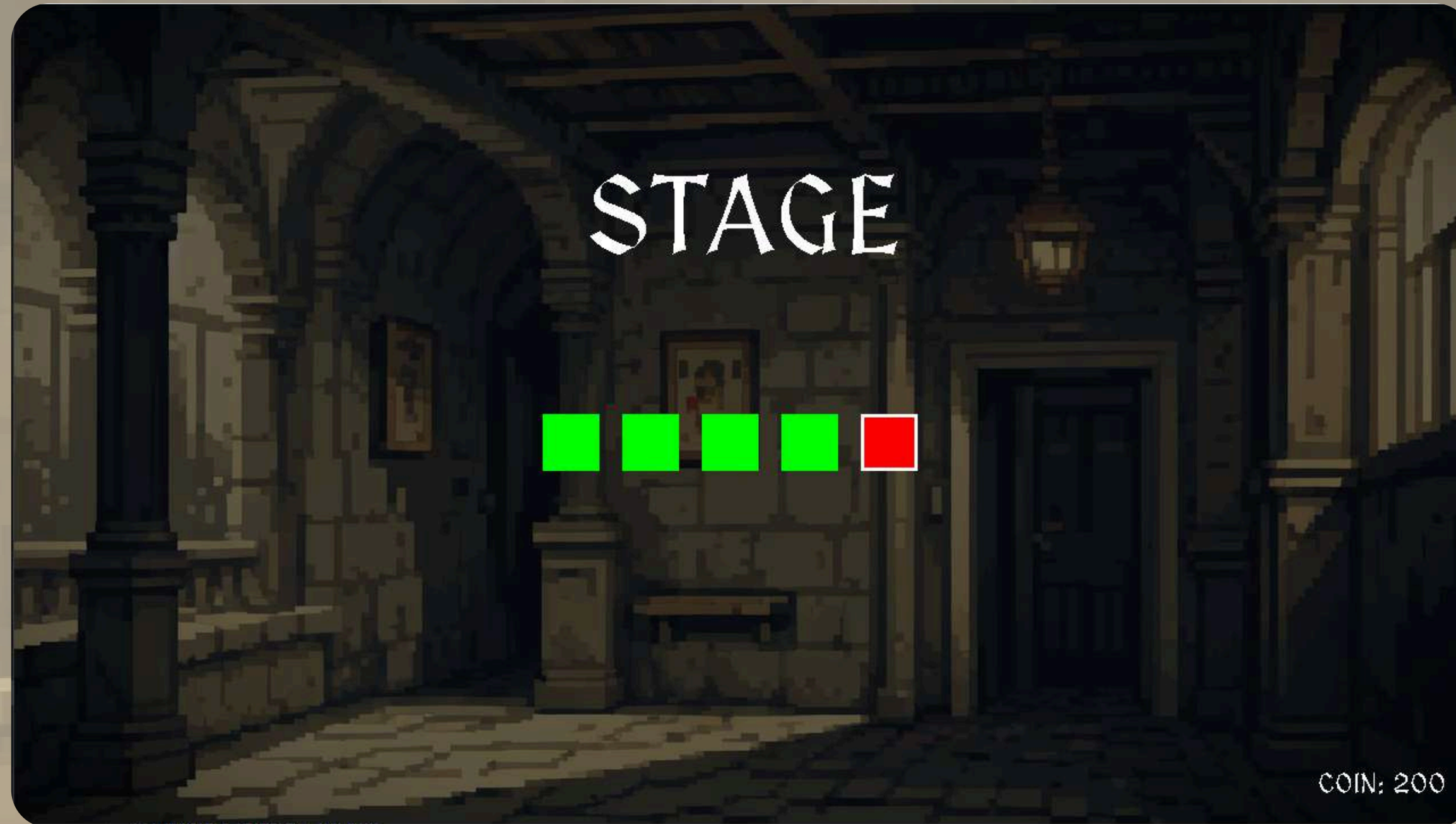
Combat

knight HP: 100 MP: 30

WEAPONS
Sword ACC: 2 D: d8

WEAPON   SPELL

ITEM   ESCAPE

Shop

Item			
A	E	H	W

Weapon			
H	F	5	R

Spell			
T	R	G	R

Armor			
K	M	P	W

Apple Juice

That's not a apple juice. Recover 2d8 HP

Cost: $20
Rarity: common

$50   Z: Buy Item X: Next Stage

Victory

Coins: 100

Victory!!

Press any key to return to main menu.

Defeat

Defeat!!

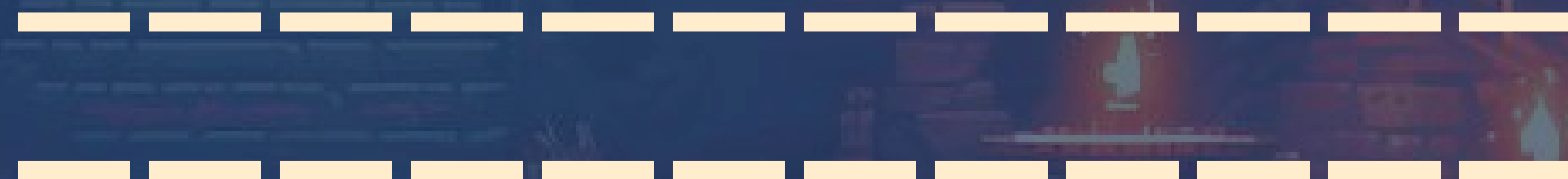Press any key to return to main menu.

Technical Details

Engine

....

Pygame (Python)

Audio

....

Background music and sound effects for actions.

Code Structure

....

- Modular state-based architecture.

- Randomization logic for enemy selection and shop items.

Challenges Faced

Challenges

- Balancing difficulty for each stage.

- Ensuring fairness in randomization.

- Designing engaging combat mechanics.

Solutions

- Tiered difficulty for monsters.

- Weighted randomization for shop items.

- Testing to refine balance and replayability.

Conclusion

- Blend of RPG combat and randomness for replayability.

- Strategic gameplay with increasing difficulty.

- Modular design for easy scalability.

- Replay value due to randomized elements.

Members
-- NAT20 --

6422780070	Ms.Phattanant	Wongprechasawad
6422780096	Mr.Nutt	Sittichaiopas
6422782720	Mr.Chayawat	Yuwaboon
6422782944	Mr.Phanupoom	Boonprapasan
6422782993	Mr.Yossawin	Khositanon

Thank You