C.O.R

```
start ──init──▶ MenuState
```

MenuState ──play/continue──▶ SetupState

MenuState ◀──view deck── (to MiscState)

MiscState ──return──▶ MenuState

SetupState ──after setup finished──▶ DrawState

MenuState ──next round── RewardState

RewardState ──restart──▶ MenuState

MenuState ──exists──▶ GameOverState

RewardState ──health ≤ 0──▶ GameOverState

GameOverState ──end──▶ end

RewardState ──After combat ends── CombatState

DrawState ──invalid input──▶ ... ApplyState

DrawState ──Selects a card──▶ ApplyState

ApplyState ──proceed/fight──▶ CombatState

States shown:
- start (initial node)
- MenuState
- SetupState
- MiscState
- GameOverState
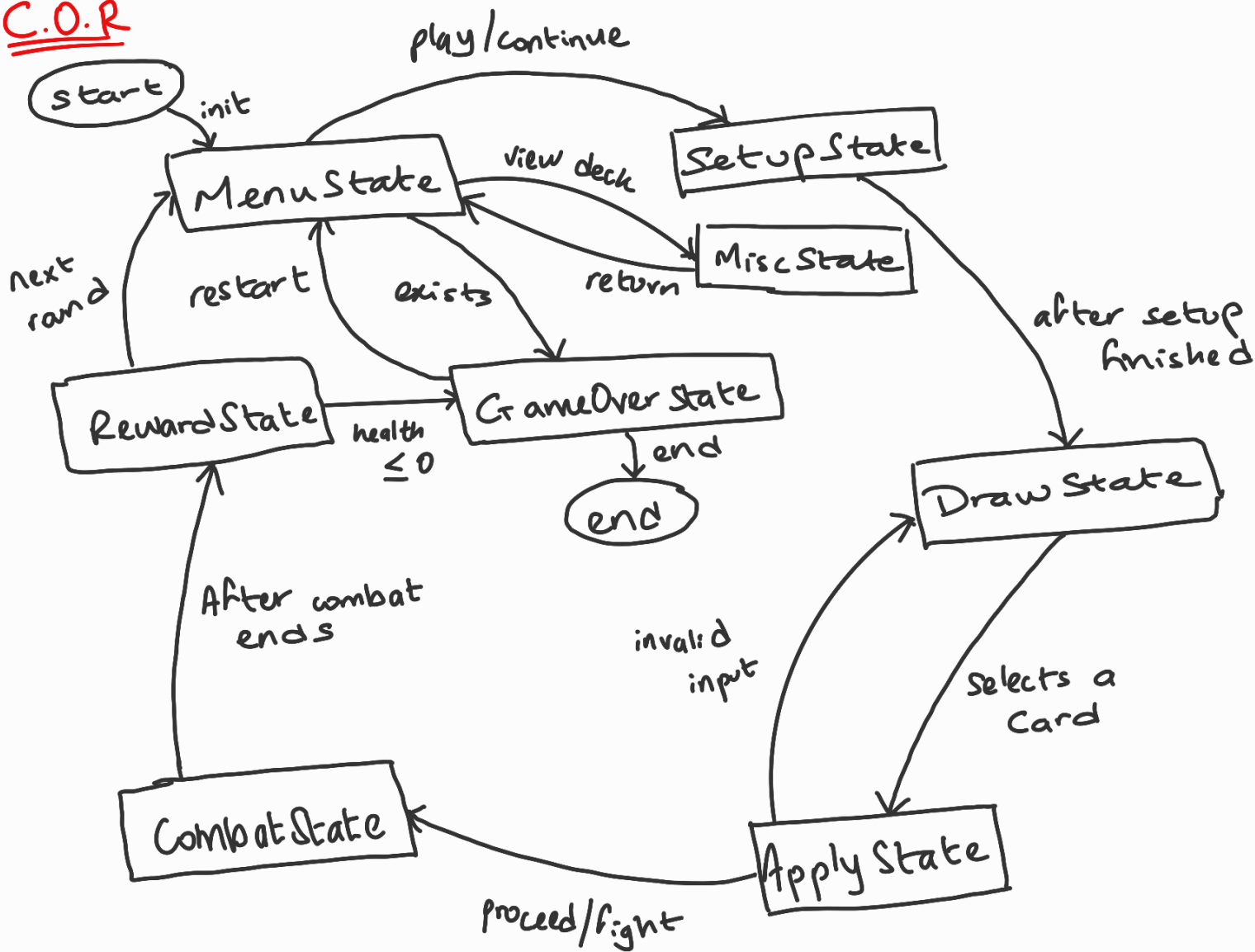- end (final node)
- RewardState
- DrawState
- ApplyState
- CombatState

MenuState : • This is the initial state of the game.
- Displays a menu where user has to choose between different options.
- The options are:
  1. Play :- proceeds to next state
  2. View Deck :- displays current deck
  3. Exit :- exit game

MiscState : • In this state, user can view their current stats (health, attack, etc...) as well as their current deck.
- Initially deck will be empty as they haven't been assigned one yet.
- Player then returns to MenuState

SetupState : • In this state, the monster is created.
- If the deck is empty, one is created and assigned to the player.
- Player is showned the assigned deck.
- Proceeds to the DrawState

DrawState : • Player draws a random card and adds it to his deck.
- Monster stat is also displayed
- Proceeds to ApplyState

ApplyState : • In this state, player picks a card from his deck to apply.
- Applies card to player stat and monster stat.
- Proceeds to CombatState

CombatState : • In this state player and monster fights
- Player's attack damages monster's shield
- If monster's shield is 0, damage is done to health.
- If monster survives, its attack damages player's shield. If shied less than or equal to 0, damage is done to health.
- Proceed to **Reward State**

RewardState : • In this state, check for win conditions
- Update monster and player stats based on round base attributes
- e.g., each round monster's defence increases
- Levelling up, etc...
- If dead, proceed **GameOver State**
- Else proceed **Menu State**

GameOverState : • This is the endgame state.
- Display points if any, etc.
- If restart, reset everything and proceed to **MenuState**
- If exited, exit application