Text adventure file structure

This document is a description of all the data formats CPS406 project is going to follow. All files listed underneath will be stored in JSON format.

Game mechanics to consider in the design:

* Hunger
* Puzzle door
* Combat

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# Story progression or World State

Since our game is puzzle solving, exploratory game. The story will be updated at each puzzle/room state/npc state point. It is better to consolidate the story progression/world state saves into one category.

The world state files will have the following:

* List of room states
* List of Npc states
* Player Statistics
  + Health
  + Position
  + Inventory

# NPC

The two main mechanics that are related to NPCs in the game are combat and hunger. The cook will have a favor mechanic to offer players better items as the game progresses.

NPC will be able to provide:

1. Story dialogues
2. Possible Combat
3. Gaining favor with them

### File format proposal

|  |
| --- |
| {  "npcName": "kappaPride",  "shortDescription": "an interesting story (after 1st intro)",  "longDescription": "1st introduction",  "currentFavor": 100,//(0-100)  "aggressive": false,  "currentDialogueFilename" : "npc\_dialogue2"  } |
|  |

Story progression will be done mainly through these npcs dialogues. Puzzle/quest items will be added to inventory when a player encounters certain dialogue files.

# Npc Dialogues or Room Descriptions

The dialogues and descriptions are going to be what the player sees as reflection of their in game action, and the main representation of game feedback.

The main goal to consider for the dialogue files are:

* Human readable format
* Easy to update
* Have a simple structure

### File format proposal

|  |
| --- |
| {  "dialogueFilename": "npc1\_dialogue1",  "category" : "Npc",  "text": "Haha, hello world",  "nextDialogueFilename": "npc1\_dialogue2"  } |

The filename and next dialogue filename will make up a **simple linked list structure** where it is easy to update and to modify in the future.

# Inventory items

Inventory items are used for puzzle solving, hunger mechanic and combat.

Considering there might be additional item options later on in the project, the item options section will be left as a list, and its functionalities will be implemented separately. The main goal of storing these items in JSON is to save their state in the inventory.

### File format proposal

|  |
| --- |
| {  "itemListArray" : [  item1,  item2  ],  "item1":{  "itemDecription": "this item is a meme",  "itemCount": 1,  "options": [  "drop",  "repair",  "anotherOption"  ]  },  "item2":{  "itemDecription": "this item is garbage",  "itemCount": 1,  "options": [  "drop",  "throw it on the ground",  "anotherOption"  ]  }  } |

# Player status

The player status will have the following considerations:

* Hunger mechanic
* Position in the world
* Combat

### File format proposal

|  |
| --- |
| {  "currentHP": 4,  "maxHP": 8,  "position": "room1",  "inventory" : "inventoryJSON",  "weaponEquipped" : "knife"  } |

# Rooms

Each room will generally have the following aspects:

* Room items / mechanics
* Room mapping

The player would enter the room, where a long description would load to give the player feedback. Room also has a list of items where it is available for the player to check their current explored state. Every time the player explores an option, the room items would update and reflect the current room’s progress.

### File format proposal

|  |
| --- |
| {  "longDescription": "A big dark room in front of you",  "listOfRoomFeatures": [  "table",  "drawer",  "bodyPillow"  ],  "RoomPosition": {  "N": "room2",  "E": null,  "S": "room3",  "W": "puzzle1"  },  "roomCurrentState": [  "table",  "bodyPillow"  ]  } |
|  |

# 

# Item Location Mapping And List

A map of all the items that are located in each of the rooms, the room state machine can look up this list to find which items to add to player inventory.

### File format proposal

|  |
| --- |
| {  "room1": {  "table":"fork",  "closet":"book"  },  "room2": {  "drawer":"shovel",  "altar":"vibrating staff"  }  } |