

# Adventure Game Project Redesign Guide

## 1. High-Level Redesign Suggestions

- Convert functions → Scene subclasses (like stage 1).
- Replace global 'key' with a Player/Inventory object.
- Split into modules: engine.py, scenes.py, map.py, player.py, utils.py.
- Use built-in modules (random, math, sys, textwrap) to enhance gameplay.
- Keep each Scene's enter() method consistent: return the next scene name.
- Encapsulate state inside objects (no globals).
- Keep the design extensible and modular.

## 2. Suggested File Structure

```
adventure_game/  
■  
■■■ engine.py      # main entry point, runs the game loop  
■■■ map.py         # handles scene mapping & starting scene  
■■■ scenes.py      # contains all the room/scene implementations  
■■■ player.py      # holds player state (inventory, health, etc.)  
■■■ utils.py       # helper functions (random, math puzzles, text formatting)  
■■■ __init__.py    # makes this a package (optional, for imports)  
  
Optional extras:  
adventure_game/data/  
■■■ descriptions.txt # long texts, story content  
■■■ puzzles.json    # math/riddle puzzles
```

## 3. Dependency Flow Chart

