

# PyBreak Escape

IRON  
HACK

Mini project by

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# PyBreak Escape – Game Structure

- General idea:
  - Text-based user interaction
  - RPG (role-playing game) style
- Data structures:
  - Dictionaries:
    - defining features of rooms, objects, keys, messages
    - defining relation between rooms, objects, keys, messages
    - defining start and end of the game
  - Lists:
    - classifying rooms and doors
  - Sets:
    - saving visited rooms

# PyBreak Escape – Functions

#part 1 or game code functions

def linebreak():

#used in playroom to make the text formatting consistent

def start\_game():

#used to aggregate the narrative message into the start of the gameplay

def play\_room(room, visited\_rooms):

#used to establish the messages to print in each of the rooms in the game

#used to define which room the player is in and which room is the final target of the game - the outside

#relates if the player has previously been to the current room

def enter\_room(room, visited\_rooms):

#uses narrative for the first time the player enters each room

def explore\_room(room):

#used to express the exploration of the player and which items exist in each game room

def get\_next\_room\_of\_door(door, current\_room):

#relates the rooms on either side of the door and performs room changes

def examine\_item(item\_name, visited\_rooms):

#adds narrative for interactions with objects and doors

#validates the presence of the keys and room changes

#part 2 or starting active gameplay

start\_game()

#triggers the input box for gameplay start

# PyBreak Escape – Features

- Clear and exciting story-telling:
  - Added descriptions and narrative for each room
  - Added some hidden messages
  - Encouraging user to explore the game
- Smooth movement through rooms:
  - Going back and forth between rooms
  - Returning different phrasing when the player re-enters a room
- Intuitive interaction with objects:
  - Added messages to the game objects that did not provide any interaction

# Technical Challenge

- Improve user friendliness
  - Make interaction more simple and intuitive
    - e.g., not always enter “examine” or “explore” and instead directly type the object
- Google Colab as a platform:
  - not the most intuitive tool
  - causing problems saving versions”)
- Interpersonal relations
  - Constructing ourselves as a group was challenging in the first day(s)
    - Difficulties to handle the new and stressful situation

# Big Mistake

- Losing updated code:
  - We lacked experience with GoogleColab and didn't make a proper plan how to save versions.
    - Learning: Never trust the “automatic saving”. Make a backup plan!
- Not having an outline of the project at first:
  - Instead we got lost in small features and needed to come back to change them.
    - Learning: Plan ahead to be more efficient and save time, energy and nerves.

# PyBreak Escape – Demo

*Try it if you dare! Good luck finding your way out...*

[https://colab.research.google.com/drive/1LHXl0uv4iZVzRsxh9ZP\\_UVgwdhOVzRWs#scrollTo=0Ypgsd5BkhM-](https://colab.research.google.com/drive/1LHXl0uv4iZVzRsxh9ZP_UVgwdhOVzRWs#scrollTo=0Ypgsd5BkhM-)



Thank you!



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