

BLG223E

Homework-1

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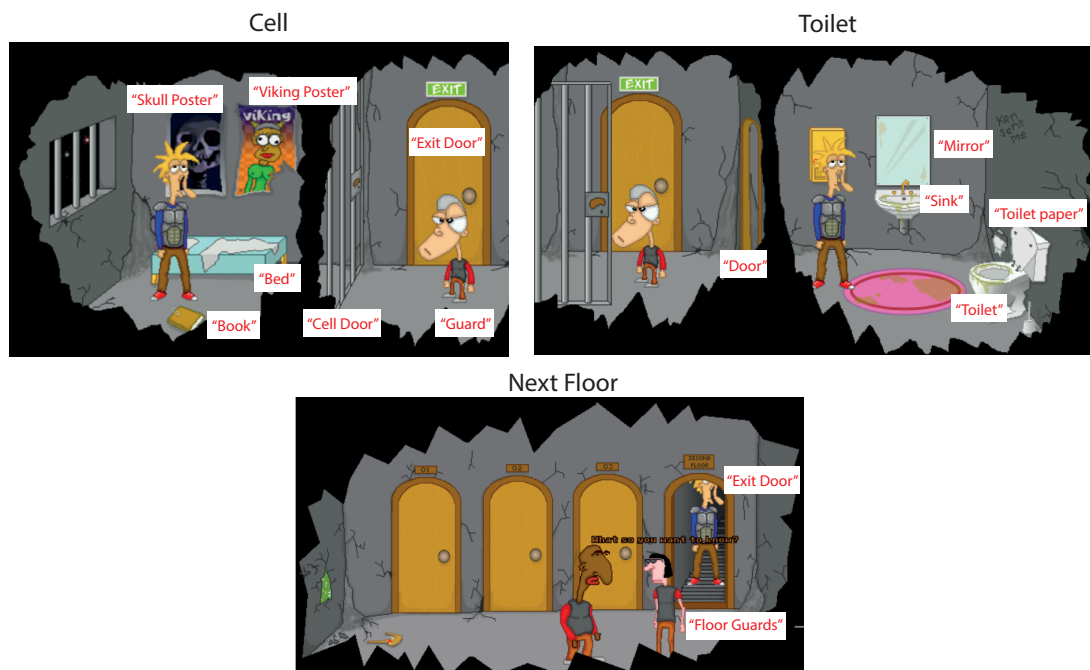


Figure 1: Some scenes and objects from the Silent Knight game

Once upon a time in the great old world, there was a kingdom called Calithulu. Calithulu was ruled by the merciless king King Arnold. King Arnold had a daughter called Jamie who was so ugly that no matter how hard one tried, one could not help oneself from insulting her! King Arnold did not like when people insulted Princess Jamie. So, he executed anyone who accidentally called her names...

Silent Knight - Chapter 1, Niels H. Sørensen

- Please write your own codes, copying code parts from books, websites or any other source including your friends is considered as plagiarism and results in penalty. Also disciplinary actions will be taken.
- Do not upload your codes to any public platform (e.g. Github) until the deadline of homework passes.
- Your code should be able to be compiled with default g++ compiler and run under Ubuntu OS. **Even if you write your code on a different OS, you should check it via ITU SSH.**
- Do not forget to comment your code.
- Submit your source codes and report files on Ninova before the deadline, late submissions and submissions via e-mail will not be accepted.
- You are **not** allowed to use STL.
- If you have any questions, please use the message board.

Ahh, my childhood... Starting from Sam & Max, I spent so much time with Point-and-Click adventure games. Directing your character from scene to scene, talking with NPCs, getting items from them... Everything was amazing. Then I investigated an easy way to create my own adventure game and found the AGS game engine ¹. In the official website, there were so many developers uploading their little games created by the engine. Among all the games, Silent Knight by Niels Højgaard Sørensen ² caught my attention.

For this homework, considering the original game, I created a text-based alternative of it. In this game we have limited actions (Open, Look At, Pick Up, Misbehave, Talk To) and limited objects. The game starts with our character standing in the prison cell. He should trick the guard, go to toilet, trick the guard again and finally bribe the floor guards to escape from the prison.

With the homework document, I also uploaded the code for this text-based game. First, please investigate the conditional structure of the game. The game state consists of, a list of objects in each room, a list of inventory objects, room ID (0=Cell, 1=Toilet, 2=NextFloor), and lose&win flags. The *advance* function makes the player do a selected action on a selected object and returns -1 for a losing action, 0 for an unnecessary action and a positive ID if something is changed.

Benefiting from the Stack data structure and DFS algorithm, find a way out without any user input! Share your findings in the report in detail. Do not make any changes in "doublelinklist.h" and "objects.h".

Good luck!

¹<https://www.adventuregamestudio.co.uk>

²<https://www.adventuregamestudio.co.uk/site/games/game/554-silent-knight-chapter-1-the-mediocre-escape/>