Final Project (Systems Software Development)

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2022-10-31

1 Introduction

- Game development using C
- Use ncurses for building interactive games
  - Snake game
  - Tetris
  - Pacman
  - ...
- Submission
  - Proposal: Explain what you want to develop
  - Presentation: Show your result and share your experience
  - Final report: Write a written document for your development

2 Schedule

- Nov 17 (Thu): Proposal submission due
- Dec 1 (Thu), Dec 8 (Thu): Presentation
- Dec 22 (Thu): Final report

3 Requirements

- Minimal requirement (70%)
  - Playable game
  - Use of C features
    - string
    - conditionals/loop
    - malloc/free

- Intermediate requirements
  - Use random numbers to introduce uncertainty
    - Position of food
    - Shape of the next piece
  - Scoring and ranking
    - Display the updated rank at the end of the game
  - Use of C features
    - Keep score using a data structure (e.g., linked list)
    - Use macros that make the C code readable
    - Write the score to the file
- Advanced requirements
  - Multiple stages (with increasing difficulty)
  - Use of C features
    - Use files to store stage data
- Bonus (up to 10%)
  - Demonstration play
  - Autoplay for the given stage (Game AI)

4 Proposal

- *submit the ppt slides (or pdf) to prj_proposal*
- Title, student id, name
- Explain the intended game
- Snapshots of the game
- Explain how you will implement the snapshot
- List of features

5 Presentation

- *submit the ppt slides (or pdf) to prj_presentation*
- Title, student id, name
- Your level of achievement (minimal, intermediate, advanced)
- Demonstration

6 Final report

- *submit the package (the word or latex document, the source codes, etc.) to prj_final*
- Report
  - Title, student id, name
  - Explain the game
  - How the game implemented (with the game loop source code)
  - How the data (scores, stages) are managed (with diagrams)
  - Known bugs (how to reproduce them)
  - Lessons learned (what would you do differently next time)
- Source code package
- makefile to generate the executable