



# Faculty of Computers and Artificial Intelligence Cairo University

## Object Oriented Programming (CS213)

### Assignment1 – Task 4

Supervised by

Dr. Mohammed El-Ramly

Team Members and IDs:

Qossay Mohammed Mahmoud

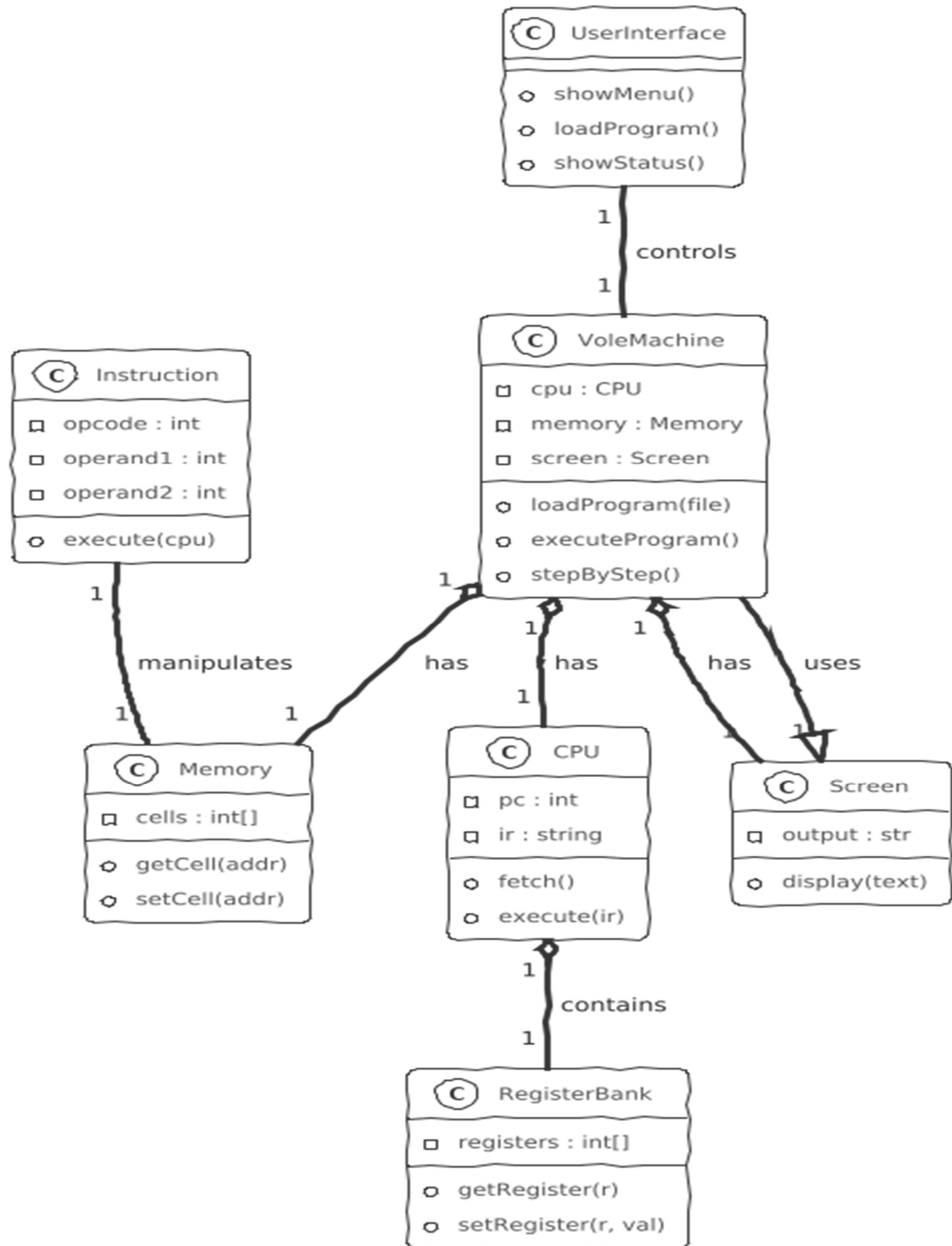
20230722

Saleem Sami Saleem Aljerjawi

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Marwan Ali Mohamed

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## Work Break-Down Table

Qossay Mohammed	<ul style="list-style-type: none"><li>- Implemented the Memory Class (Memory.h, Memory.cpp) for managing memory access and displaying memory contents.</li><li>- Developed methods for memory access (getCell, setCell) and error handling for out-of-bounds memory addresses.</li></ul>
Saleem Aljerjawi	<ul style="list-style-type: none"><li>- Implemented the RegisterBank Class (RegisterBank.h, RegisterBank.cpp) for managing registers, reading, writing, and displaying register values.</li><li>- Developed the UserInterface Class (UserInterface.h, UserInterface.cpp) for managing user input, loading programs, and controlling program execution.</li><li>- Added file loading mechanism for loading programs into memory.</li></ul>
Marwan Ali	<ul style="list-style-type: none"><li>- Implemented the CPU Class (CPU.h, CPU.cpp) to decode and execute instructions, interact with memory and registers, and control program execution with the PC.</li><li>- Developed the instruction execution logic (LOAD, STORE, ADD, etc.) and error handling for opcodes.</li></ul>
ALL	<ul style="list-style-type: none"><li>- VoleMachine Class: All the team contributed to integrating the Memory, Registers, CPU, and User Interface to ensure proper interaction and program execution.</li></ul>

## GitHub Part

<https://github.com/Saleem-Aljerjawi/VoleMachineSimulator>

The screenshot shows the GitHub repository for VoleMachineSimulator. The repository is owned by Saleem-Aljerjawi and is currently on the main branch. The commit history shows several recent commits, including the addition of the README.md file and the VoleMachine.cpp and VoleMachine.h files. The README file is currently selected, and its content is displayed below the commit history. The README content describes the repository as containing a VoleMachineSimulator, which includes separate compilation files that simulate the machine's operations using various instructions.

**VoleMachineSimulator**

This repository contains a VoleMachineSimulator, which includes separate compilation files that simulate the machine's operations using various instructions.