


UVSim

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Faupusa

A dark green diagonal gradient bar that starts from the bottom left corner and extends towards the top right corner, covering the lower half of the slide.

Overview

Purpose:

- Run programs written in BasicML and simulate the the registers and memory during operation

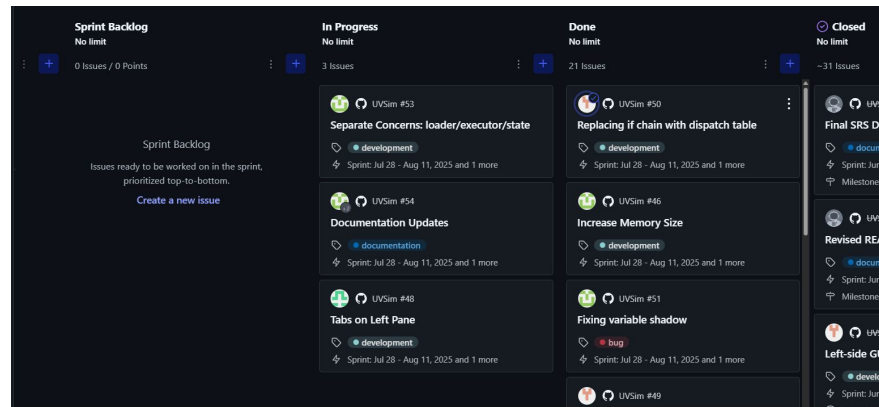
Features and Client Requirements:

- Run
- Step
- Selecting, Editing, and Saving BasicML Programs
- User Input
- Console Output
- Display Memory, Accumulator, and Program Counter
- Tab Management
- Themes - UVU colors

Milestone 1

Planning Phase:

- Created Github [Repo](#)
- Created Zenhub Board
- Created Scrum Master Rotation
- Created Meeting Report Template
- Python Selected
- Selected Meeting Times



Milestone 2

Milestone Requirements:

- Created UVSim Console Application
- Requested Files With BasicML Opcodes
- Implemented Unit Tests for All Opcodes

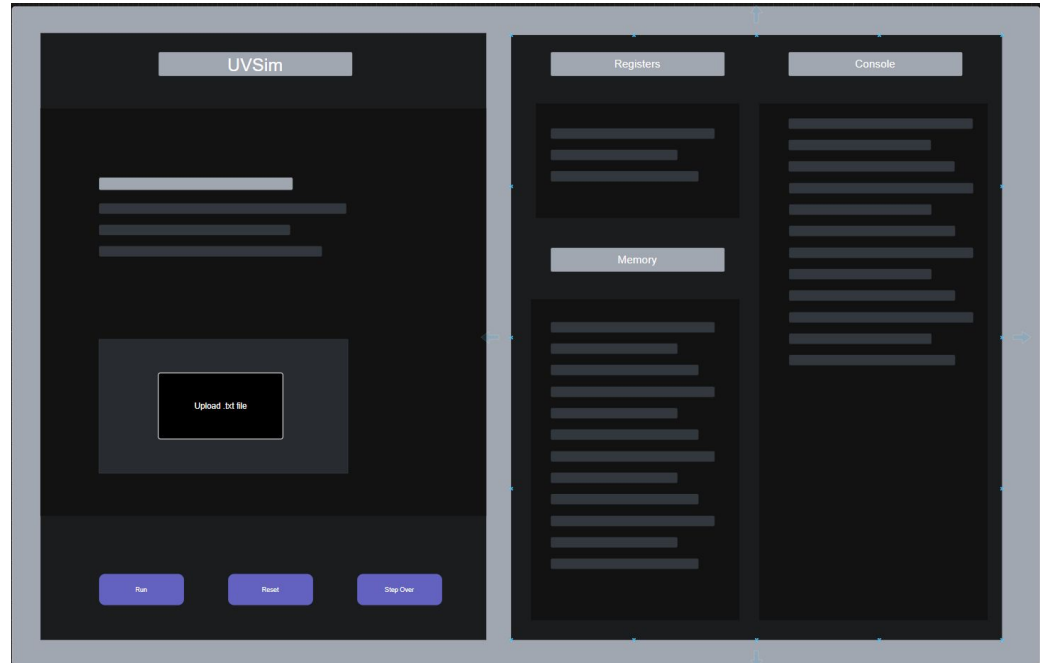
BasicML Opcodes:

- READ = 10
- WRITE = 11
- LOAD = 20
- STORE = 21
- ADD = 30
- SUBTRACT = 31
- DIVIDE = 32
- MULTIPLY = 33
- BRANCH = 40
- BRANCHNEG = 41
- BRANCHZERO = 42
- HALT = 43

Milestone 3

Requirements:

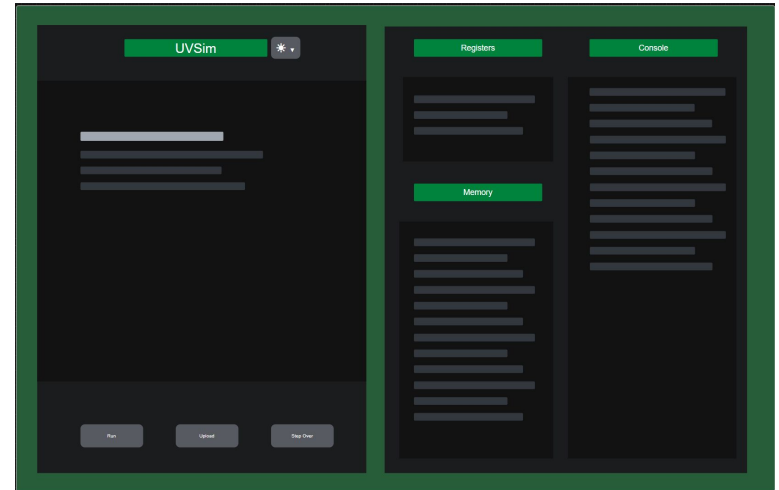
- Wireframe Draft
- Initial Non-Functional GUI Implementation
- Standardized Documentation
 - Design Document
 - SRS Document - Functional and Non-Functional Requirements
 - Class Definition Document



Milestone 4

Requirements:

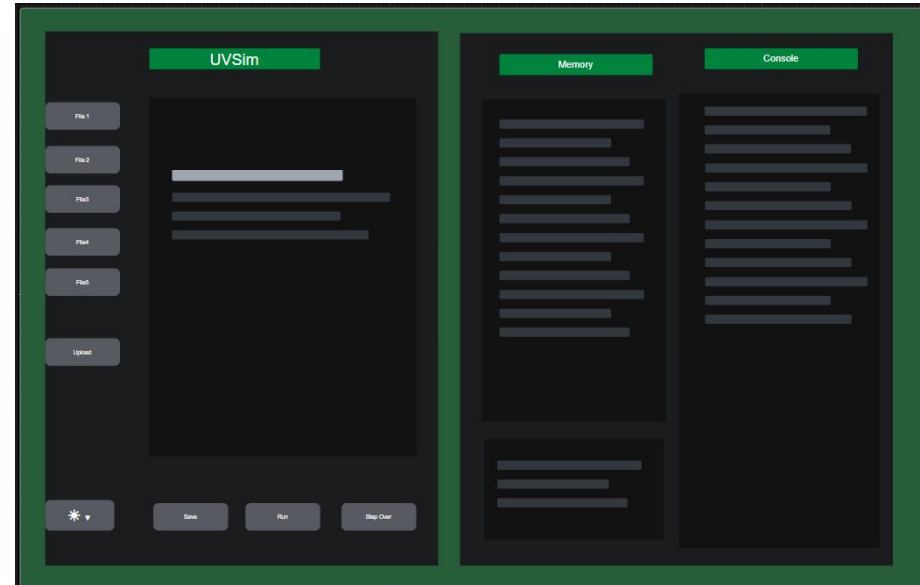
- Front-End and Back-End Connection
- Client Requests
 - UVU Branded Colors
 - User Selector Theme
 - User File Editing



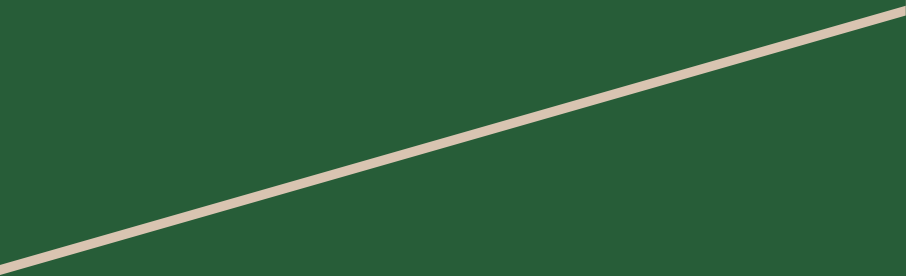
Milestone 5

Requirements:

- Larger memory (increase from 100 slots to 250 slots)
- Now supports files containing either 6-digit or 4-digit instructions
 - READ OpCode '10' becomes '010'
 - Memory '07' becomes '007'
 - Instruction +1007 becomes +010007
- User can upload/edit/save multiple files and switch between them using a Tab Panel



Demo



Roadmap for the future

- Enhance current features
 - Upload files to existing tabs
 - Open the PC's native file browser
- Improved Scalability
 - Memory increase
 - Support larger files
 - New data types
- Improved mobile/app support
- Improved UI
 - More color schemes
 - Responsive buttons, labels