purpose of the class, purpose of each function, description of any input parameters for the function, description of return value (if any), pre- and post-conditions for the function

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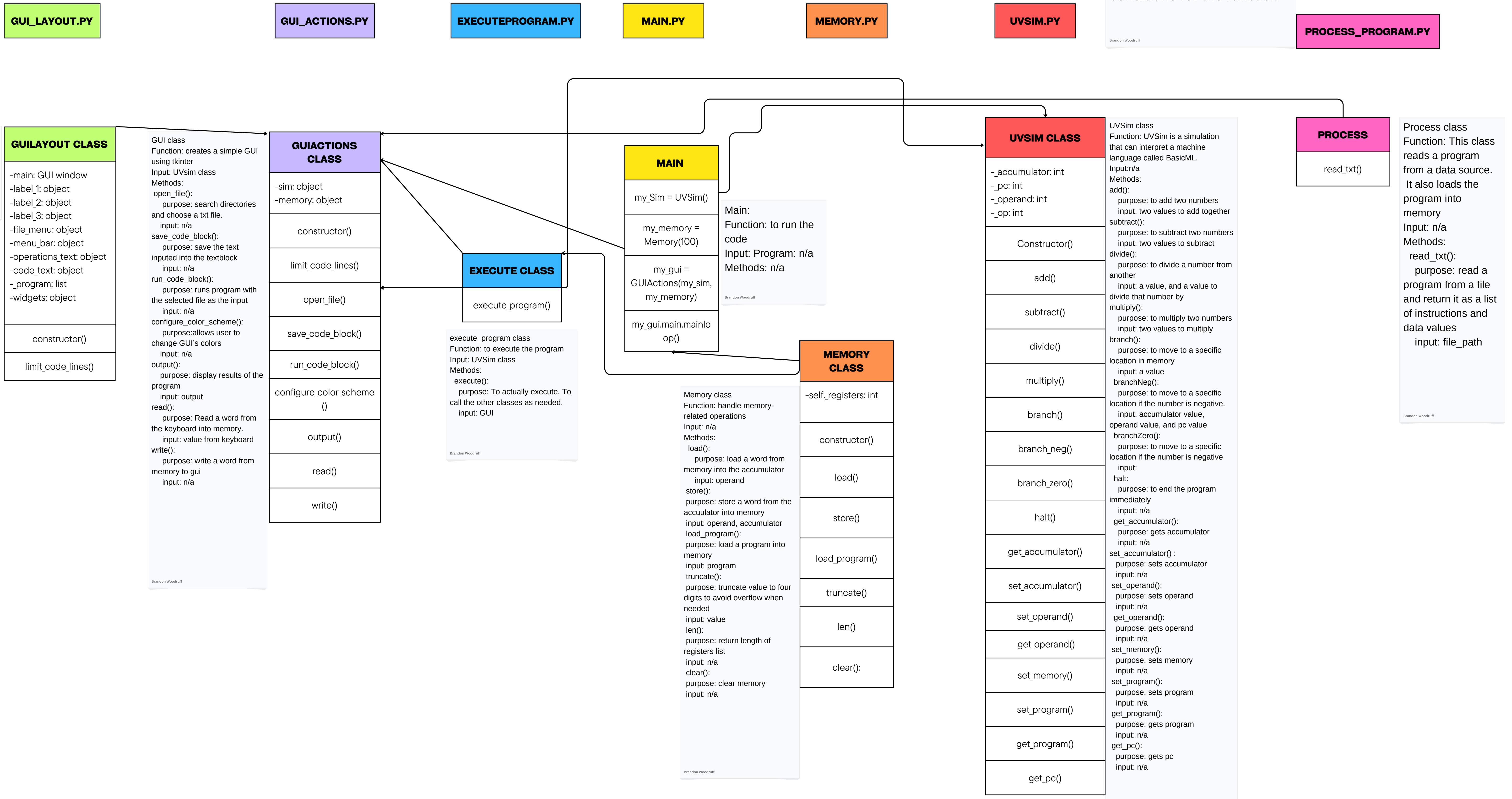

GUILayout class
Function:This class creates the GUI using tkinterMethods:
  limit_code_lines():
    purpose: limit the number of lines in the code block
    input: event

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GUI class
Function: creates a simple GUI using tkinter
Input: UVsim class
Methods:
 open_file():
    purpose: search directories and choose a txt file.
    input: n/a
save_code_block():
    purpose: save the text inputed into the textblock
    input: n/a
run_code_block():
    purpose: runs program with the selected file as the input
    input: n/a
configure_color_scheme():
    purpose:allows user to change GUI's colors
    input: n/a
output():
    purpose: display results of the program
    input: output
read():
    purpose: Read a word from the keyboard into memory.
    input: value from keyboard
write():
    purpose: write a word from memory to gui
    input: n/a

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execute_program class
Function: to execute the program
Input: UVSim class
Methods:
  execute():
    purpose: To actually execute, To call the other classes as needed.
    input: GUI

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Main:
Function: to run the code
Input: Program: n/a
Methods: n/a

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Memory class
Function: handle memory-related operations
Input: n/a
Methods:
  load():
    purpose: load a word from memory into the accumulator
    input: operand
 store():
 purpose: store a word from the acculator into memory
 input: operand, accumulator
 load_program():
 purpose: load a program into memory
 input: program
 truncate():
 purpose: truncate value to four digits to avoid overflow when needed
 input: value
 len():
 purpose: return length of registers list
 input: n/a
 clear():
 purpose: clear memory
 input: n/a

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UVSim class
Function: UVSim is a simulation that can interpret a machine language called BasicML.
Input:n/a
Methods:
add():
    purpose: to add two numbers
    input: two values to add together
subtract():
    purpose: to subtract two numbers
    input: two values to subtract
divide():
    purpose: to divide a number from another
    input: a value, and a value to divide that number by
multiply():
    purpose: to multiply two numbers
    input: two values to multiply
branch():
    purpose: to move to a specific location in memory
    input: a value
  branchNeg():
    purpose: to move to a specific location if the number is negative.
    input: accumulator value, operand value, and pc value
  branchZero():
    purpose: to move to a specific location if the number is negative
    input:
  halt:
    purpose: to end the program immediately
    input: n/a
  get_accumulator():
    purpose: gets accumulator
    input: n/a
set_accumulator() :
   purpose: sets accumulator
   input: n/a
 set_operand():
   purpose: sets operand
   input: n/a
  get_operand():
   purpose: gets operand
   input: n/a
 set_memory():
   purpose: sets memory
   input: n/a
 set_program():
   purpose: sets program
   input: n/a
 get_program():
   purpose: gets program
   input: n/a
 get_pc():
   purpose: gets pc
   input: n/a

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Process class
Function: This class reads a program from a data source.
 It also loads the program into memory
Input: n/a
Methods:
  read_txt():
    purpose: read a program from a file and return it as a list of instructions and data values
    input: file_path

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