IMMERSIVE LEARNING ENVIRONMENT

LAB: BASIC CPU PROGRAMMING

LEARNING OBJECTIVE

The objective of this lab is for students to gain knowledge on basic concept of Stack data structure and how a program is executed with the help of stacks.

DESCRIPTION

A stack is an array or list structure of function calls and parameters used in modern computer programming and CPU architecture. Similar to a stack of plates at a buffet restaurant or cafeteria, elements in a stack are added or removed from the top of the stack, in a "last in first, first out" or LIFO order.

The process of adding data to a stack is referred to as a "push," while retrieving data from a stack is called a "pop." This occurs at the top of the stack. A stack pointer indicates the extent of the stack, adjusting as elements are pushed or popped to a stack.

When a function is called, the address of the next instruction is pushed onto the stack.

When the function exits, the address is popped off the <u>stack</u> and execution continues at that address.

COMPONENT SECTIONS

- Game file/folder name: Game
- Movie file name: movie
- Power Point file name: Basic CPU Programming.ppt
- Assessment file name: Basic CPU Programming Quiz.doc

WHAT TO SUBMIT

Submit the quiz document by answering all the questions.