Lab 9

Yashesh Patel

Part 1

Q1. Text

Description automatically generated

Part 2

Q1.

Text

Description automatically generated

Q2.

#include <stdio.h>

int main() {

//initialize a char variable, print its addresss and the next address

char charvar= '\0';

printf("address of charvar= %p\n", (void \*) (&charvar));

printf("address of charvar-1= %p\n" (void \*) (&charvar-1));

printf("address of charvar+1= %p\n", (void \*) (&charvar+1));

//initialize an int variable, print its address and the next address

int intvar= 1;

printf("address of intvar= %p\n", (void \*) (&intvar));

printf("address of intvar-1= %p\n",(void \*) (&intvar-1));

printf("address of intvar+1= %p\n",(void \*) (&intvar+1));

}

Q3. Intvar is declared as an integer data type which takes up four bytes of memory.

Part 3

Q1. Text

Description automatically generated

Q2. The address of the array and the address of the first element are the same.

Q3. The statement sizeof(numbers) gives the total memory usage of the array in bytes. If you take that number and divide by four, you’ll get five or the number of elements in the array. You divide by four because the array is of integers and each integer takes up four bytes of memory.