# Introduction to Pointers Assignments

**Mandatory**

1. Refer the code snippet below. int main()

{

char arr=”hello hi “;

int \*ptr = arr;

printf(“sizeof ptr:%d, arr:%d”, sizeof(ptr), sizeof(arr));

display(ptr); // display the address in hex and contents using pointer

}

Perform the following.

1. Implement the display() function (Use the “0x%x” formatting specifier to print addresses in hexadecimal.)
2. comment on the sizeof(ptr) and sizeof(arr)

sizeof(ptr) gives the size of pointer and sizeof(arr) gives the complete size of arr.

1. Code:

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Output:

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Description automatically generated

1. Refer the code snippet below. int main()

#define MAX 100

#define SUCCESS 0

#define FAILURE 1

int main()

{

char arr[MAX] = “Learning C“;

char\*ptr = arr;

char appendstr[3]= “in my org”;

printf(“Address of ptr:%x”, ptr);

int ret = append(ptr, appendstr);// append the string

printf(“Address of ptr:%x”, ptr);

if (ret == SUCCESS)

{

display(ptr); // display the address in hex and contents using pointer

}

}

Perform the following.

1. Implement the append() function to append the contents of the appendstr[] to arr using pointer.

[Note: append() should only use its content and not manipulate it. Contents should be retained even after the call]

1. Code:

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Output:

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1. Refer the code in “pointer\_prg.c”. The functions swap\_nums() and swap\_pointers() are expected to swap the numbers and pointers respectively. But swap\_pointers() is currently not giving the expected results. Analyse and the fix the issue.
2. Code:

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