# Function Parameter Passing and Return Assignments

**Mandatory**

1. Refer the code below and find the issue.

#include<stdio.h>

int \*func(void);

int main()

{

int num,\*ptr = NULL;

ptr = (int \*)func();

num = \*ptr;

return 1;

}

int \*func()

{

int local;

local = 10;

return(&local);

}

In above code is there a way(s) to return local variable address to caller?

Ans) The code is giving the error of segmentation fault because local variable can not be returned. By using the static keyword, we can return local variable. So that the variable can be accessed till the function end.

1. Write a program with a function ***read\_extract\_characters()*** to read a string (of max length 50 characters) from user, extract the characters at odd indices, store in an other array and return to the call. Caller should be able to read and display the extracted string.

[Note : do not return a local variable in function to caller]

Ans)

A computer screen with many colorful text

Description automatically generated with medium confidence

A screen shot of a computer

Description automatically generated

1. Write below functions to extract and return the required inputs from an email id string of max length 80 characters. Program should be able to detect an invalid email id too based on following validations. Also value returned should be in scope and accessible in caller.
   1. valid email id will have username, host and domain name (as .com/.edu)

**Functions**:

*char \*getuser(char input[]); // return NULL or valid username from email id input*

*char \*gethost(char input[]); //return NULL or valid hostname from email id input*

*char \*getdomain(char input[]); //return NULL or valid domain name from email id input*

*int isValidDomain(char input[]); // return 1 if domain is “.com” or “.edu” else 0*

A screen shot of a computer program

Description automatically generated

A screen shot of a computer program

Description automatically generated

A computer screen with text and images

Description automatically generated

A computer screen with white text

Description automatically generated