### Lab 1 - In Lab Assignment
Due end of the lab session
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Acknowledge your collaborators or source of solutions, if any. **Submission by the end of the LAB is required.** Please type your answers, handwritten submission will not be accepted. Do all of the following. A subset of your solutions will be graded.

1) **What does the command below do?**
   >head -3 cs1412.txt
   Head is used to read head section of file. By default, it prints 10 lines of code.
   So, the above command prints top 3 lines of code of cs 1412.txt.

2) **What command to use to copy every file ending ".c" from the home directory to the current working directory?**

   We can use cp command in Linux.
   cp syntax. cp source file destination file
   So, we can use following command:
   cp ~/*.c .    ~for home directory
   or we can also do
   cp home/*.c .
   . denote present working directory in Linux terminal.

   ```
   PS C:\Users\Dhung> cp home/*.c .
   PS C:\Users\Dhung>
   ```

3) **What is illegal about the following program**

   **fragment? #include <stdio.h>**
   **#define PI 3.14**

   **int main()**
   **{**
       **double c, r;**

       **scanf("%lf %lf",**
       **&c,&r);**
       **c = 2 * PI * r ;**
       **PI = c / (2 * r);**

**return 0;**

}

#define PI 3.14 is preprocessor command for defining constant. So, we should not try to modify it. The value of Pi is replaced by preprocessor to 3.14 before compilation.

Trying to modify it in statement PI = c / (2 * r); is illegal.

4) **Write a program fragment that asks the user to enter 2 integers in two separate lines, then displays the summation of these two numbers.**

**Sample run given below where the red bold numbers are the input from the**

**user: Please enter number 1: 14**

**Please enter number 2: 5**

**Summation of 14 and 5 is 19**

```c
#include <stdio.h>

int main(void) {

  //initializing variables
  int firstNumber, secondNumber, sum;
  //input first Number
  printf("Please enter number 1:");
  scanf("%d",&firstNumber);

  //input second Number
  printf("Please enter number 1:");
  scanf("%d",&secondNumber);

  //finding the sum and printing it.
  sum = firstNumber + secondNumber;
  printf("Summation of %d and %d is %d\n",firstNumber, secondNumber,sum);


  return 0;
}
```

Output window:

```c
#include <stdio.h>

int main(void) {

    //initializing variables
    int firstNumber, secondNumber, sum;
    //input first Number
    printf("Please enter number 1:");
    scanf("%d",&firstNumber);

    //input second Number
    printf("Please enter number 1:");
    scanf("%d",&secondNumber);

    //finding the sum and printing it.
    sum = firstNumber + secondNumber;
    printf("Summation of %d and %d is %d\n",firstNumber, secondNumber, sum);

    return 0;
}
```

Console | Shell

```
> clang-7 -pthread -lm -o main main.c
> ./main
Please enter number 1:14
Please enter number 1:5
Summation of 14 and 5 is 19
>
```

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