Task 1: Main Function

Write only ONE program with comment symbols. The following two programs can be obtained by moving the comments. Compare the outputs of the these two programs. Requirements are in next page.

Program P1

```
#include<stdio.h>
int main()
{
  printf("Hello\n");
  return 1;
  printf("World\n");
}
```

```
#include<stdio.h>
int main()
{
  printf("Hello\n");
  printf("World\n");
  return 0;
}
```

Program P2

For example:

```
//c=2*a+b;
x=a+2*b;
```

=

```
x=a+2*b;
```

Same sentences with different comment positions

```
c=2*a+b;
//x=a+2*b;
```

=

```
c=2*a+b;
```

Task 1: Main Function (Cont.)

Task requirements:

- Find the .exe file under the certain path
- Run them under DOS (e.g., if the program is `p.exe`, run it simply by typing `p` and then the ENTER key)
- Check the output
- Check the return value by using the command *echo %errorlevel%*. Answer the following questions:
  - What are the different return for programs P1 and P2?
  - What return statement is used for?
  - Put the answers to the above questions at the end of program P2 as comments.

Task 2: Bytes for each type*

The function `sizeof` is to used to get the number of bytes used for st oring a data of certain type in computer. For example, the result of `si zeof(int)` is 4, and result of `sizeof(char)` is 1. Please write a pr ogram and give the following outputs where `___` is replaced with a va lue obtained from `sizeof`.

```
Number of bytes used to store a short int type variable is ___
Number of bytes used to store a char type variable is __
Number of bytes used to store a double type variable is ___
Number of bytes used to store a float type variable is ___
Number of bytes used to store a long int type variable is ___
Number of bytes used to store an int type variable is ___
```

Task 3: Sum.cpp

```
#include <stdio.h>
int main()
{
  int value1, value2, sum;
  value1 = 15;
  value2 = 30;
  sum = value1 + value2;
  printf("The sum of %d and %d is %d\n", value1, value2, sum);
  return 0;
}
```

Requirements (put the outputs as comments at the end of the progra m):

- Edit and run this program and see the output.
- Change `int` to `float`, and check the result again.
- Then change three `%d` into `%f`, and check the result again.
- Then add `.1` between `%` and `f` in the first `%f`, and check the result.

Add info about a program

At the top of each program, add the information (comments in red). It is also required for EACH lab program in this semester.

```
// Programmer: ……
// Student ID: ……
// Date:….
// Task no: Week_#_Task_#
// Requirements: ……
#include<stdio.h>
int main()
{
   …….
}
```

Task 4: Percentage.cpp

Run the program *Percentage.cpp* on page 15 of Lecture 3 and try the following three inputs:

- `10of100`
- `10 of100`
- `10 of 100`

Please describe the output for each input and explain why the these results are produced as comments at the end of the program.

Submission

- Compressed *.cpp into one file with file name in the format *Lab1_#######.zip* and submit it into iSpace.