* ***Purpose :*** **Classwork**

* **Date : 19/12/2025**

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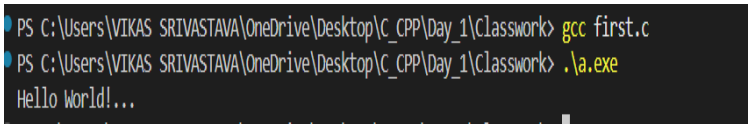
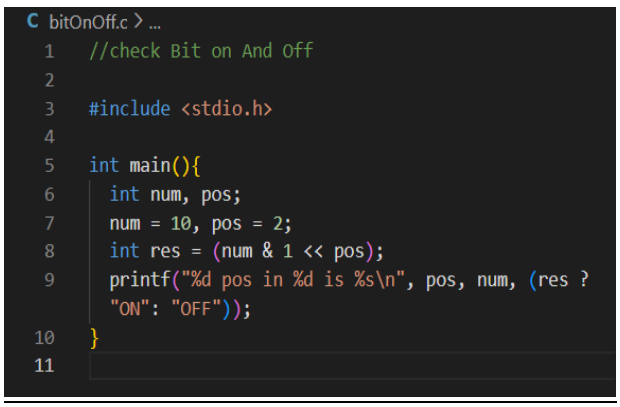
1. ***Code :*** Write a program to display the message “Hello World!” on the screen using the C programming language.

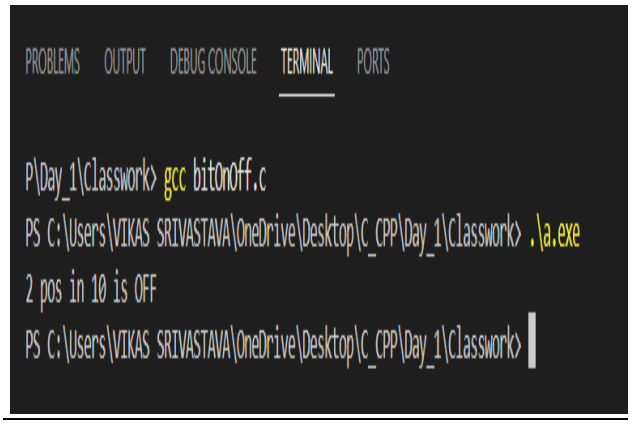
Output :



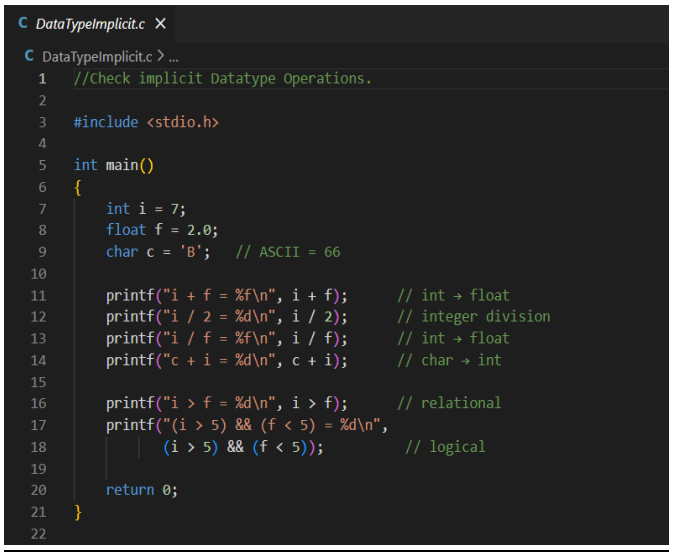
2. Code : Write a Program to checks whether a specific bit position in a number is ON (1) or OFF (0).



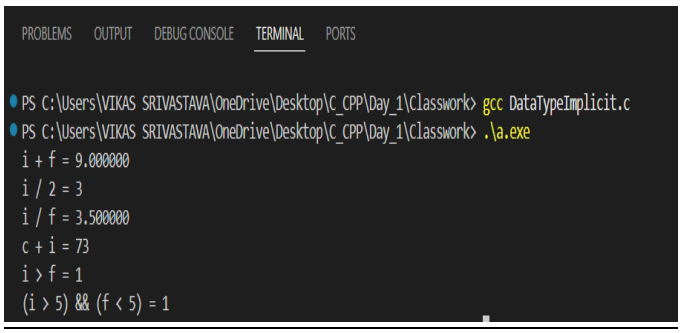
Output :



3. ***Code :*** Write a Program to demonstrates implicit type conversion in C.



Output :



4. ***Code :*** Write a Program to shows how the same binary value is interpreted differently when treated as signed and unsigned data types.

```c
#include <stdio.h>

int main(){
  short  var = -1;

  printf("Short Signed: %hd\t\tShort Unsigned: %hu\n", var, var);

}
```

Output :

```
PS C:\Users\VIKAS SRIVASTAVA\OneDrive\Desktop\C_CPP\Day_1\Classwork> .\a.exe
Short Signed: -1                Short Unsigned: 65535
```

5. ***Code :*** Write a program to demonstrate the working of a do-while loop by printing numbers from 0 to 10.

```c
#include <stdio.h>

int main(){

  int cnt = 0 ;//initialization
  do {
    printf("%d  ", cnt);
    cnt++; //alter or update
  }while (cnt <= 10); //condition checking
  printf("\n");
}
```

Output :

```
PS C:\Users\VIKAS SRIVASTAVA\OneDrive\Desktop\C_CPP\Day_1\Classwork> gcc doWhile.c
PS C:\Users\VIKAS SRIVASTAVA\OneDrive\Desktop\C_CPP\Day_1\Classwork> .\a.exe
0  1  2  3  4  5  6  7  8  9  10
```

6. ***Code :*** Write a program to demonstrate a menu-driven application using a do-while loop and switch-case, where the user selects an option and the program executes the corresponding choice until an invalid option is entered.

menuOne.c

```c
#include <stdio.h>

int main(){
  int choice;
  do {
    printf("Enter the choice: ");
    scanf("%d", &choice);
    switch(choice){
      case 1:
        printf("You have chosen Edge\n");
        //later when functions are introduced
        break;
      case 2:
        printf("You have chosen Python\n");
        //later when functions are introduced
        break;
      case 3:
        printf("You have chosen Java\n");
        //later when functions are introduced
        break;
      default:
        printf("No such option Available\n");
        return 1;
    }
  }while(1);//Always true here


}
```

Output :

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

PS C:\Users\VIKAS SRIVASTAVA\OneDrive\Desktop\C_CPP\Day_1\Classwork> gcc menuOne.c
PS C:\Users\VIKAS SRIVASTAVA\OneDrive\Desktop\C_CPP\Day_1\Classwork> .\a.exe
Enter the choice: 1
You have chosen Edge
Enter the choice: 2
You have chosen Python
Enter the choice: 3
You have chosen Java
Enter the choice: 4
No such option Available
```