

LAB ASSIGTNMENT 1

COMPUTER PROGRAMMING

(25BECCS43)

/*1. Write a program (WAP) to display "Hello World" on console display.

MANTAVYA KUMAR;23-09-2025*/

```
#include<stdio.h>
```

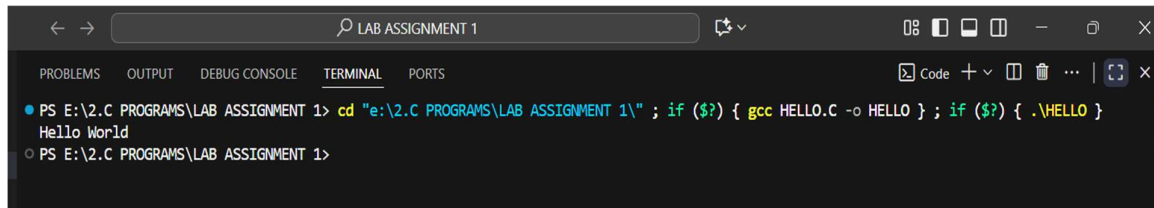
```
int main()
```

```
{
```

```
    printf("Hello World");
```

```
    return 0;
```

```
}
```



The screenshot shows a terminal window titled 'LAB ASSIGNMENT 1'. The command prompt shows the user navigating to the directory 'E:\2.C PROGRAMS\LAB ASSIGNMENT 1' and running a command to compile and execute a program named 'HELLO.C'. The output of the program is 'Hello World'.

/*2. WAP to input an integer and display it.

MANTAVYA KUMAR;23-09-2025*/

```
#include<stdio.h>
```

```
int main()
```

```
{
```

```
    int A;
```

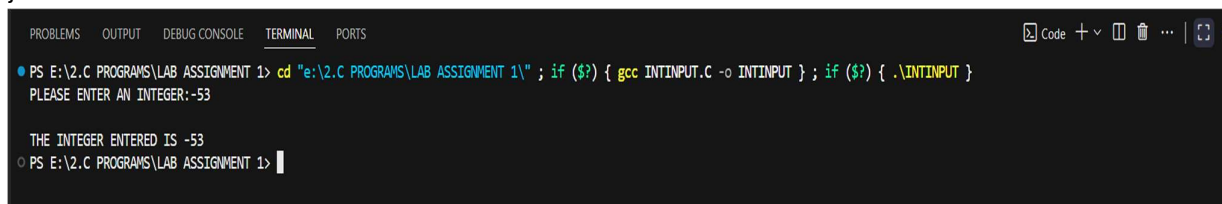
```
    printf("PLEASE ENTER AN INTEGER");
```

```
    scanf("%d",&A);
```

```
    printf("\nTHE INTEGER ENTERED IS %d",A);
```

```
    return 0;
```

```
}
```



The screenshot shows a terminal window titled 'LAB ASSIGNMENT 1'. The command prompt shows the user navigating to the directory 'E:\2.C PROGRAMS\LAB ASSIGNMENT 1' and running a command to compile and execute a program named 'INTINPUT.C'. The user enters '-53' when prompted 'PLEASE ENTER AN INTEGER'. The output of the program is 'THE INTEGER ENTERED IS -53'.

/*3. WAP to input a decimal number and display it.

MANTAVYA KUMAR;23-09-2025*/

```
#include<stdio.h>
```

```
int main(){
```

```
    float D;
```

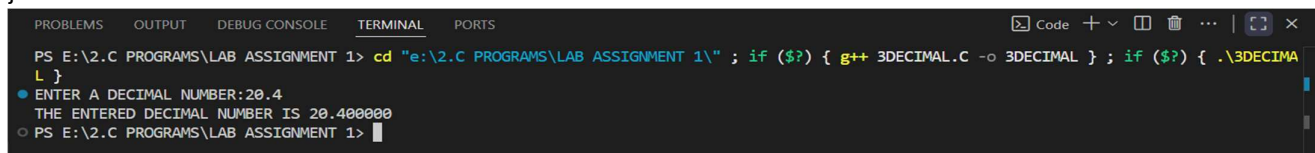
```
    printf("ENTER A DECIMAL NUMBER:");
```

```
    scanf("%f",&D);
```

```
    printf("THE ENTERED DECIMAL NUMBER IS %f",D);
```

```
    return 0;
```

```
}
```



The screenshot shows a terminal window titled 'LAB ASSIGNMENT 1'. The command prompt shows the user navigating to the directory 'E:\2.C PROGRAMS\LAB ASSIGNMENT 1' and running a command to compile and execute a program named '3DECIMAL.C'. The user enters '20.4' when prompted 'ENTER A DECIMAL NUMBER:'. The output of the program is 'THE ENTERED DECIMAL NUMBER IS 20.400000'.

/*4. WAP to input a character and display it.

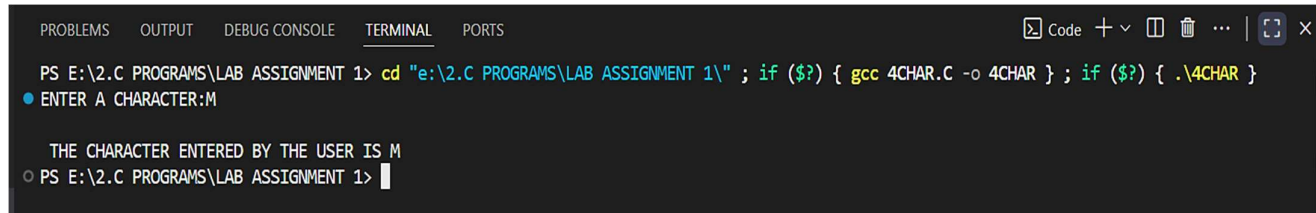
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MANTAVYA KUMAR;23-09-2025*/

```
#include<stdio.h>
int main(){
    char C;
    printf("ENTER A CHARACTER:");
    scanf("%c",&C);
    printf("\n THE CHARACTER ENTERED BY THE USER IS %c",C);
}
```



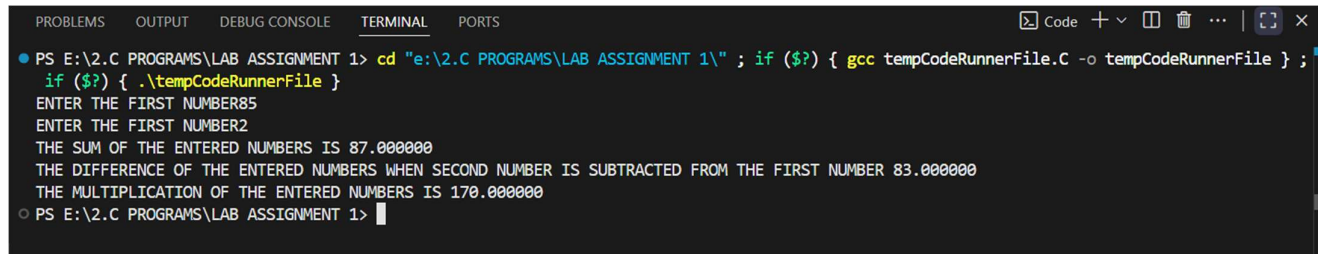
```
PS E:\2.C PROGRAMS\LAB ASSIGNMENT 1> cd "e:\2.C PROGRAMS\LAB ASSIGNMENT 1\" ; if ($?) { gcc 4CHAR.C -o 4CHAR } ; if ($?) { .\4CHAR }
● ENTER A CHARACTER:M

    THE CHARACTER ENTERED BY THE USER IS M
○ PS E:\2.C PROGRAMS\LAB ASSIGNMENT 1> █
```

/*5. WAP to add, subtract and multiply numbers. [Note: Avoid Divide operation, we will do it in next lab after type

casting];MANTAVYA KUMAR;24-09-2025 */

```
#include<stdio.h>
int main(){
    float A,B,SUM,S,M;
    printf("ENTER THE FIRST NUMBER");
    scanf("%f",&A);
    printf("ENTER THE FIRST NUMBER");
    scanf("%f",&B);
    SUM=A+B;
    S=A-B;
    M=A*B;
    printf("THE SUM OF THE ENTERED NUMBERS IS %f",SUM);
    printf("\nTHE DIFFERENCE OF THE ENTERED NUMBERS WHEN SECOND NUMBER IS SUBTRACTED FROM THE FIRST NUMBER %f",S);
    printf("\nTHE MULTIPLICATION OF THE ENTERED NUMBERS IS %f",M);
    return 0;
}
```



```
PS E:\2.C PROGRAMS\LAB ASSIGNMENT 1> cd "e:\2.C PROGRAMS\LAB ASSIGNMENT 1\" ; if ($?) { gcc tempCodeRunnerFile.C -o tempCodeRunnerFile } ; if ($?) { .\tempCodeRunnerFile }
ENTER THE FIRST NUMBER85
ENTER THE FIRST NUMBER2
THE SUM OF THE ENTERED NUMBERS IS 87.000000
THE DIFFERENCE OF THE ENTERED NUMBERS WHEN SECOND NUMBER IS SUBTRACTED FROM THE FIRST NUMBER 83.000000
THE MULTIPLICATION OF THE ENTERED NUMBERS IS 170.000000
○ PS E:\2.C PROGRAMS\LAB ASSIGNMENT 1> █
```

/*6. WAP to calculate gross salary of a person, where gross_salary=basic+da+ta and da is 10% of basic and ta is

12% of basic.;MANTAVYA KUMAR;24-09-2025*/

```
#include<stdio.h>
```

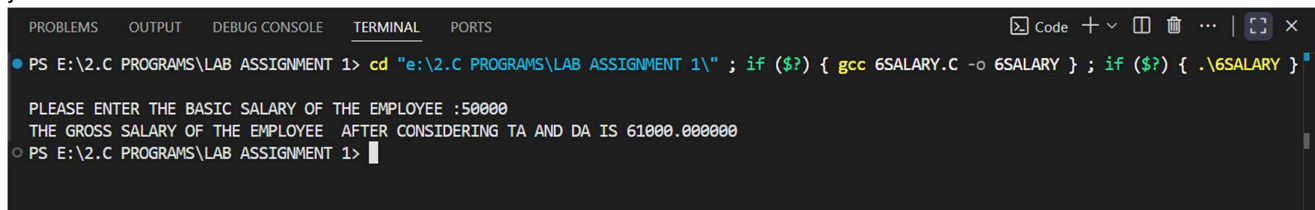
```
int main(){
    int BS;
```

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```
float GS;
printf("PLEASE ENTER THE BASIC SALARY OF THE EMPLOYEE :");
scanf("%d",&BS);
GS=BS+((BS*10)/100)+((BS*12)/100);
printf("THE GROSS SALARY OF THE EMPLOYEE AFTER CONSIDERING TA AND DA IS %f",GS);
return 0;
}
```



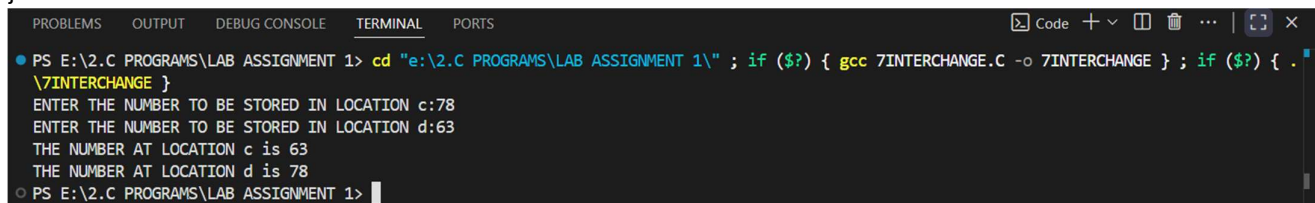
The screenshot shows a terminal window with the following content:

```
PS E:\2.C PROGRAMS\LAB ASSIGNMENT 1> cd "e:\2.C PROGRAMS\LAB ASSIGNMENT 1\" ; if ($?) { gcc 6SALARY.C -o 6SALARY } ; if ($?) { .\6SALARY }

PLEASE ENTER THE BASIC SALARY OF THE EMPLOYEE :50000
THE GROSS SALARY OF THE EMPLOYEE AFTER CONSIDERING TA AND DA IS 61000.000000
PS E:\2.C PROGRAMS\LAB ASSIGNMENT 1>
```

/*7.Two numbers are input through the keyboard into location c and d. WAP to interchange the contents of c and d using third variable.*/

```
#include<stdio.h>
int main(){
    int C,D,E;
    printf("ENTER THE NUMBER TO BE STORED IN LOCATION c:");
    scanf("%d",&C);
    printf("ENTER THE NUMBER TO BE STORED IN LOCATION d:");
    scanf("%d",&D);
    E=C;
    C=D;
    D=E;
    printf("THE NUMBER AT LOCATION c is %d",C);
    printf("\nTHE NUMBER AT LOCATION d is %d",D);
    return 0;
}
```



The screenshot shows a terminal window with the following content:

```
PS E:\2.C PROGRAMS\LAB ASSIGNMENT 1> cd "e:\2.C PROGRAMS\LAB ASSIGNMENT 1\" ; if ($?) { gcc 7INTERCHANGE.C -o 7INTERCHANGE } ; if ($?) { .\7INTERCHANGE }

ENTER THE NUMBER TO BE STORED IN LOCATION c:78
ENTER THE NUMBER TO BE STORED IN LOCATION d:63
THE NUMBER AT LOCATION c is 63
THE NUMBER AT LOCATION d is 78
PS E:\2.C PROGRAMS\LAB ASSIGNMENT 1>
```

/*8. Two numbers are input through the keyboard into location c and d. WAP to interchange the contents of c and d

without using a third variable

MANTAVYA KUMAR;24-09-2025*/

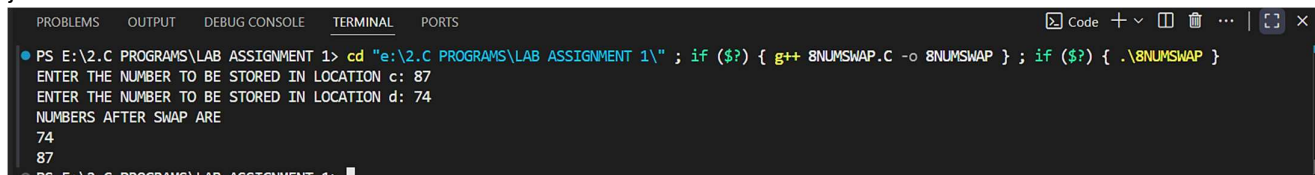
```
#include <stdio.h>
int main(){
    int C,D;
    printf("ENTER THE NUMBER TO BE STORED IN LOCATION c: ");
    scanf("%d", &C);
    printf("ENTER THE NUMBER TO BE STORED IN LOCATION d: ");
    scanf("%d", &D);
    C=C+D;
```

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```
D=C-D;
C=C-D;
printf("NUMBERS AFTER SWAP ARE\n");
printf("%d\n", C);
printf("%d ",D);
return 0;
}
```

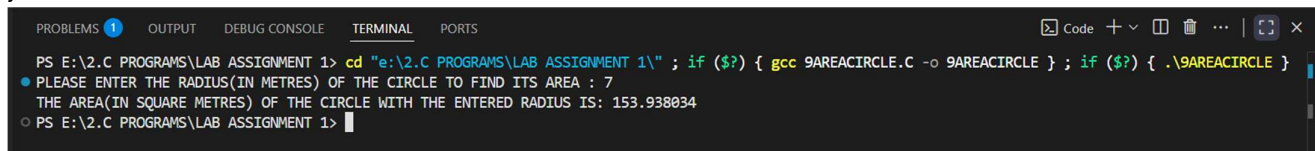


```
PS E:\2.C PROGRAMS\LAB ASSIGNMENT 1> cd "e:\2.C PROGRAMS\LAB ASSIGNMENT 1\" ; if ($?) { gcc 8NUMSWAP.C -o 8NUMSWAP } ; if ($?) { .\8NUMSWAP }
ENTER THE NUMBER TO BE STORED IN LOCATION c: 87
ENTER THE NUMBER TO BE STORED IN LOCATION d: 74
NUMBERS AFTER SWAP ARE
74
87
PS E:\2.C PROGRAMS\LAB ASSIGNMENT 1>
```

/*9. WAP for area of a circle.

MANTAVYA KUMAR;24-09-2025*/

```
#include<stdio.h>
#include<math.h>
int main(){
    float R,A;
    printf("PLEASE ENTER THE RADIUS(IN METRES) OF THE CIRCLE TO FIND ITS AREA : ");
    scanf("%f",&R);
    A=M_PI*(pow(R,2));
    printf("THE AREA(IN SQUARE METRES) OF THE CIRCLE WITH THE ENTERED RADIUS IS: %f",A);
    return 0;
}
```



```
PS E:\2.C PROGRAMS\LAB ASSIGNMENT 1> cd "e:\2.C PROGRAMS\LAB ASSIGNMENT 1\" ; if ($?) { gcc 9AREACIRCLE.C -o 9AREACIRCLE } ; if ($?) { .\9AREACIRCLE }
PLEASE ENTER THE RADIUS(IN METRES) OF THE CIRCLE TO FIND ITS AREA : 7
THE AREA(IN SQUARE METRES) OF THE CIRCLE WITH THE ENTERED RADIUS IS: 153.938034
PS E:\2.C PROGRAMS\LAB ASSIGNMENT 1>
```

/*10. WAP for simple interest and compound interest. ;MANTAVYA KUMAR;25-09-2025*/

```
#include<stdio.h>
#include<math.h>
int main(){
    float P,R,T,SI,CI;
    printf("ENTER THE PRINCIPAL AMOUNT: ");
    scanf("%f",&P);
    printf("ENTER RATE OF INTEREST PER ANNUM: ");
    scanf("%f",&R);
    printf("ENTER THE DURATION OF INTEREST IN YEARS: ");
    scanf("%f",&T);
    SI=((P*R*T)/100);
    CI=P*(pow((1+(R/100)),T));
    printf("THE SIMPLE INTEREST IS %f",SI);
    printf("THE COMPOUND INTEREST IS %f",CI);
    return 0;
}
```

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```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS E:\2.C PROGRAMS\LAB ASSIGNMENT 1> cd "e:\2.C PROGRAMS\LAB ASSIGNMENT 1\" ; if ($?) { gcc 10SICI.C -o 10SICI } ; if ($?) { .\10SICI }
ENTER THE PRINCIPAL AMOUNT IN Rs. : 15000
ENTER RATE OF INTEREST PER ANNUM: 10
ENTER THE DURATION OF INTEREST IN YEARS: 5
THE SIMPLE INTEREST IS Rs. 7500.000000
THE COMPOUND INTEREST IS Rs. 24157.654297
PS E:\2.C PROGRAMS\LAB ASSIGNMENT 1>
```

/*11. If a 5-digit number is input through the keyboard, then write a program to reverse the number.

MANTAVYA KUMAR;01-09-2025*/

```
#include<stdio.h>
```

```
int main(){
```

```
    int A;
```

```
    printf("ENTER THE FIVE DIGIT NUMBER TO BE REVERSED: ");
```

```
    scanf("%d",&A);
```

```
    int REV;
```

```
    REV=(A%10)*10000+((A%100)-(A%10))*100+((A%1000)-(A%100))*1+((A%10000)-(A%1000))/100+(A/10000);
```

```
    printf("THE NUMBER AFTER THE REVERSAL IS: %d",REV);
```

```
    return 0;
```

```
}
```

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS E:\2.C PROGRAMS\LAB ASSIGNMENT 1> cd "e:\2.C PROGRAMS\LAB ASSIGNMENT 1\" ; if ($?) { g++ 11REVNUM.C -o 11REVNUM } ; if ($?) { .\11REVNUM }
ENTER THE FIVE DIGIT NUMBER TO BE REVERSED: 54321
THE NUMBER AFTER THE REVERSAL IS: 12345
PS E:\2.C PROGRAMS\LAB ASSIGNMENT 1>
```