

Week 2

Problem 1

```
/*
 * Author: Soham Shashank
 * SRN: PES1UG25CS527
 */
#include <stdio.h>
int main()
{
    int rnum,m1,m2,m3,m4,m5,total;
    float avg;
    printf("Enter the roll number: \n");
    scanf(" %d",&rnum);
    printf("Enter marks obtained in 5 subjects: \n");
    scanf(" %d %d %d %d %d",&m1,&m2,&m3,&m4,&m5);
    total=m1+m2+m3+m4+m5;
    avg=total/5;
    printf("Total marks:%d Average:%f",total,avg);
return 0;
}
```

```
C:\Users\student\Desktop\PES1UG25CS527>gcc problem1.c -o problem1.exe && problem1
Enter the roll number:
40
Enter marks obtained in 5 subjects:
100 98 99 98 95
Total marks:482 Average:96.00
C:\Users\student\Desktop\PES1UG25CS527>
```

Problem 2

```
/*
 * Author: Soham Shashank
 * SRN: PES1UG25CS527
 */
#include <stdio.h>
int main()
{
    int units;
    float cpu,amt;
    printf("Enter no. of units consumed: \n");
    scanf(" %d",&units);
    printf("Enter cost per unit(in Rs.): \n");
    scanf(" %f",&cpu);
    amt=units*cpu;
    printf("Total electricity bill amount: Rs.%2f",amt);
```

```
        return 0;  
    }  
}
```

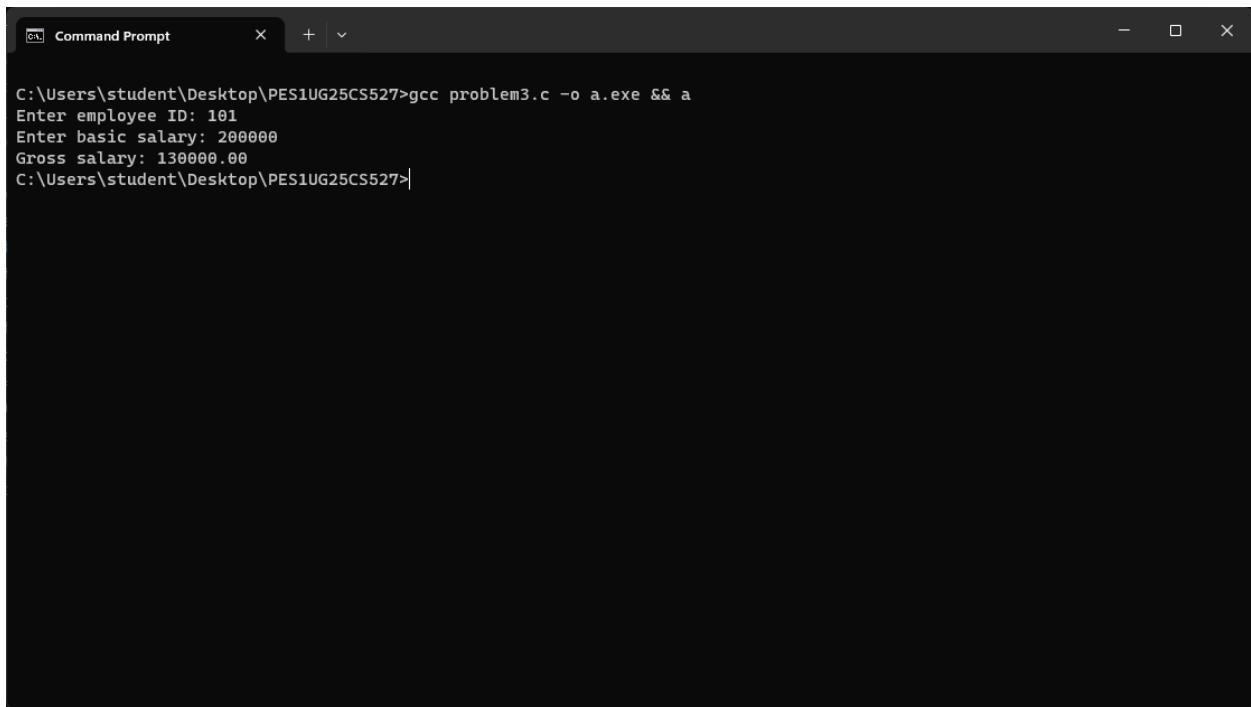
A screenshot of a Windows Command Prompt window titled "Command Prompt". The window shows the following interaction:

```
C:\Users\student\Desktop\PES1UG25CS527>gcc problem2.c -o problem2.exe && problem2  
Enter no. of units consumed:  
120  
Enter cost per unit (in Rs.):  
5  
Total electricity bill amount: Rs.600.00  
C:\Users\student\Desktop\PES1UG25CS527>|
```

Problem 3

```
*****  
Author Soham Shashank  
SRN PES1UG25CS527  
*****/  
#include <stdio.h>  
int main(){  
    int emp_id;  
    float basicAllowance,hra,dearAllowance,gross;  
    printf("Enter employee ID: ");  
    scanf("%d",&emp_id);  
    printf("Enter basic salary: ");  
    scanf("%f",&basicAllowance);  
    hra = 0.2*basicAllowance;  
    dearAllowance = 0.15*basicAllowance;
```

```
    gross = (basicAllowance - hra - dearAllowance);
    printf("Gross salary: %.2f",gross);
    return 0;
}
```



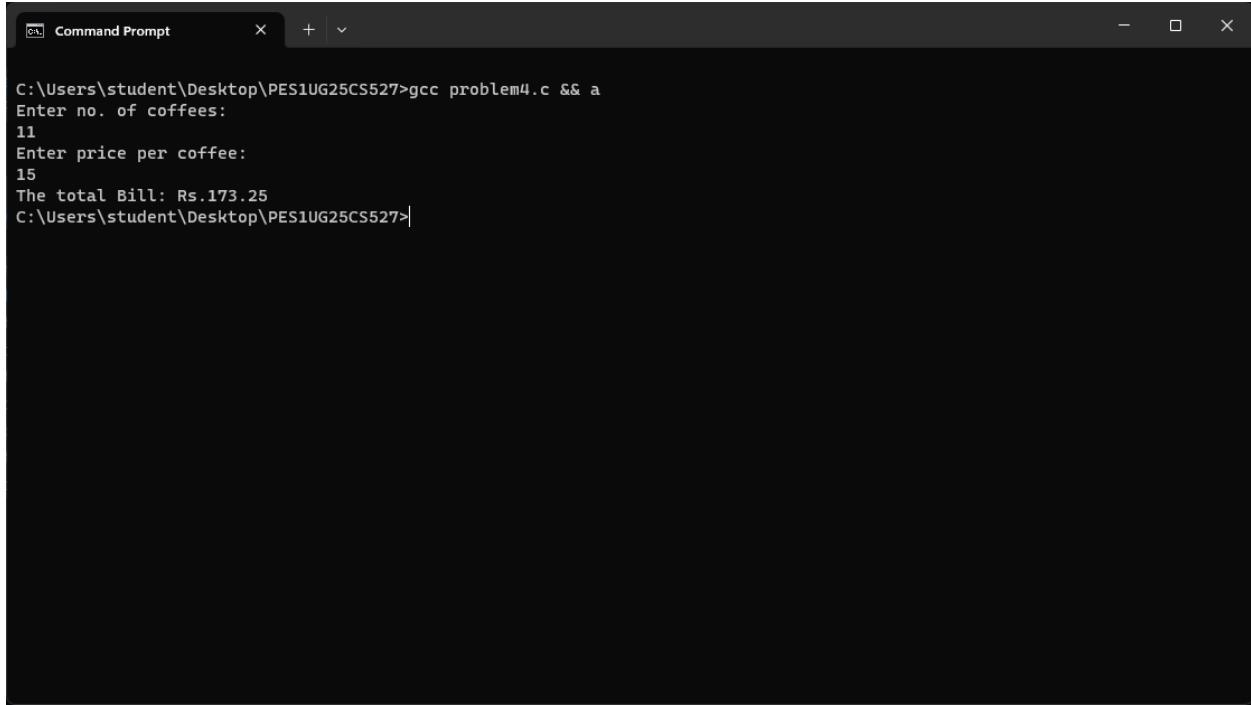
```
C:\Users\student\Desktop\PES1UG25CS527>gcc problem3.c -o a.exe && a
Enter employee ID: 101
Enter basic salary: 200000
Gross salary: 130000.00
C:\Users\student\Desktop\PES1UG25CS527>
```

Problem 4

```
/*
 * Author: Soham Shashank
 * SRN: PES1UG25CS527
 */

#include <stdio.h>
int main()
{
    int n;
    float cp,bl;
    printf("Enter no. of coffees:\n");
    scanf(" %d",&n);
```

```
    printf("Enter price per coffee:\n");
    scanf(" %f",&cp);
    bl=cp*n+cp*n*0.05;
    printf("The total Bill: Rs.%.*f",bl);
    return 0;
}
```

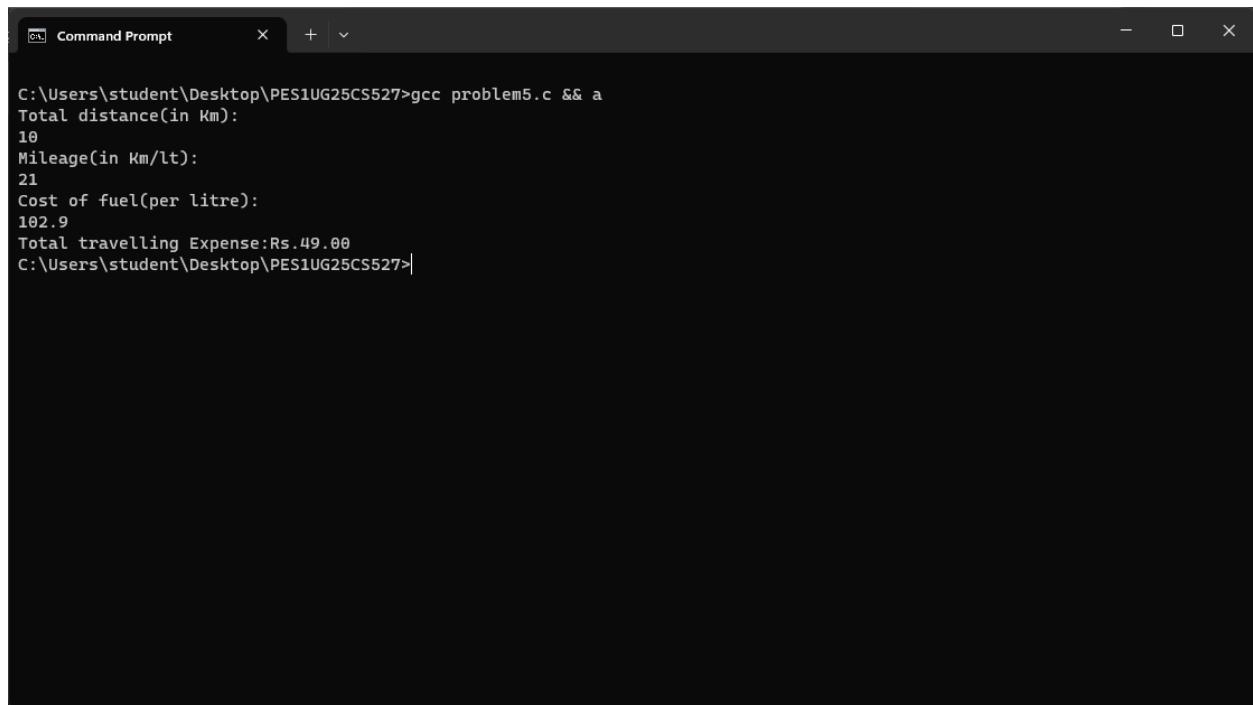


```
C:\Users\student\Desktop\PES1UG25CS527>gcc problem4.c && a
Enter no. of coffees:
11
Enter price per coffee:
15
The total Bill: Rs.173.25
C:\Users\student\Desktop\PES1UG25CS527>
```

Problem 5

```
/*
 * Author: Soham Shashank
 * PES1UG25CS527
 */
#include <stdio.h>
int main()
{
    float td,mil,cfp,exp;
    printf("Total distance(in Km):\n");
    scanf(" %f",&td);
```

```
printf("Mileage(in Km/lt):\n");
scanf(" %f",&mil);
printf("Cost of fuel(per litre):\n");
scanf(" %f",&cfp);
exp=td/mil*cfp;
printf("Total travelling Expense:Rs.%2f",exp);
return 0;
}
```



The screenshot shows a Windows Command Prompt window titled "Command Prompt". The command `gcc problem5.c && a` is run, followed by user input for total distance (10) and mileage (21). The program calculates the cost of fuel per litre as 102.9 and prints the total travelling expense as Rs.49.00.

```
C:\Users\student\Desktop\PES1UG25CS527>gcc problem5.c && a
Total distance(in Km):
10
Mileage(in Km/lt):
21
Cost of fuel(per litre):
102.9
Total travelling Expense:Rs.49.00
C:\Users\student\Desktop\PES1UG25CS527>
```

Problem 6

```
/*
 * Author: Soham Shashank
 * PES1UG25CS527
 */
#include <stdio.h>
int main(){
    float bankBalance,withdrawAmount,depositAmount,balance;
```

```
printf("Enter your bank balance: ");
scanf("%f",&bankBalance);
printf("Enter withdrawal Amount: ");
scanf("%f",&withdrawAmount);
printf("Enter deposit Amount: ");
scanf("%f",&depositAmount);
balance = bankBalance + depositAmount - withdrawAmount;
printf("New bank balance %.2f",balance);
return 0;
}
```

```
C:\Users\student\Desktop\PES1UG25CS527>gcc problem6.c && a
Enter your bank balance: 1406
Enter withdrawal Amount: 400
Enter deposit Amount: 5000
New bank balance 6006.00
C:\Users\student\Desktop\PES1UG25CS527>
```

Problem 7

```
/*
 * Author: Soham Shashank
 * PES1UG25CS527
 */
#include <stdio.h>
```

```
int main(){
    float pi = 3.141592653589793238764623884197165390761;
    float r,h,vol;
    printf("Enter radius of cone: ");
    scanf("%f",&r);
    printf("Enter height of cone: ");
    scanf("%f",&h);
    vol = pi*r*r*h;
    printf("Volume of cone is: %.2f",vol);
    return 0;
}
```

The screenshot shows a Windows Command Prompt window titled "Command Prompt". The window has a dark theme. Inside, the command "gcc problem7.c && a" is run, followed by user input for the radius and height of a cone, and the resulting output showing the calculated volume.

```
C:\Users\student\Desktop\PES1UG25CS527>gcc problem7.c && a
Enter radius of cone: 10
Enter height of cone: 10
Volume of cone is: 3141.59
C:\Users\student\Desktop\PES1UG25CS527>
```

Problem 8

```
/*
 * Author: Soham Shashank
 * SRN: PES1UG25CS527
 */
```

```
#include <stdio.h>
int main(){
    float c,f;
    printf("Enter temperature in celsius: ");
    scanf("%f",&c);
    f = 1.8*c+32;
    printf("Temperature in Farhenheit is: %.2f",f);
    return 0;
}
```

The screenshot shows a Windows Command Prompt window titled "Command Prompt". The command `gcc problem8.c && a` is entered, followed by the input "32" when prompted for temperature in Celsius. The output shows the converted temperature in Fahrenheit as 89.60.

```
C:\Users\student\Desktop\PES1UG25CS527>gcc problem8.c && a
Enter temperature in celsius: 32
Temperature in Farhenheit is: 89.60
C:\Users\student\Desktop\PES1UG25CS527>
```