```c
// Progrm to calculate the sum of first 10 even numbers.
#include <stdio.h>
int main()
{
    int sum = 0;
    printf("Sum of first 10 even numbers:\n");
    for (int i = 0; i <= 10; i += 2)
    {
        sum += i;
    }
    printf("Sum = %d", sum);
    return 0;
}
```

PROBLEMS   OUTPUT   TERMINAL   PORTS   COMMENTS   DEBUG CONSOLE

> ./question1
Sum of first 10 even numbers:
Sum = 30%

~/Documents/BCA/2nd Sem/C/College_Assignment/**assignment14**

```c
1   // Program to display all prime numbers less than 100.
2   #include <stdio.h>
3   int main()
4   {
5       int prime;
6       printf("Prime numbers from 1 to 100 are:\n");
7       for (int i = 2; i < 100; i++)
8       {
9           prime = 1;
10          for (int j = 2; j < i; j++)
11          {
12              if (i % j == 0)
13              {
14                  prime = 0;
15                  break;
16              }
17          }
18          if (prime)
19          {
20              printf("%d\t", i);
21          }
22      }
23      return 0;
24  }
```

```
> ./question2
Prime numbers from 1 to 100 are:
2       3       5       7       11      13      17      19      23      29      3
1       37      41      43      47      53      59      61      67      71      7
3       79      83      89      97

~/Doc/BC/2/C/C/assignment14                                ok │ 07:07:52 PM
```

```c
// Program to display all the leap years starting from 1900 to 2000.
#include <stdio.h>
int main()
{
    int year;
    printf("Leap years starting from 1900 to 2000.\n");
    for (int year = 1900; year <= 2000; year++)
    {
        if (year % 400 == 0 || (year % 100 != 0 && year % 4 == 0))
        {
            printf("%d\t", year);
        }
    }
    return 0;
}
```

```
1904    1908    1912    1916    1920    1924    1928    1932    1936    1940    1944
1948    1952    1956    1960    1964    1968    1972    1976    1980    1984    1988
1992    1996    2000
```

~/Doc/BC/2/C/C/**assignment14**   ok | 07:23:32 PM

```c
/*Write a program to display the following menu:
1. To find the area of circle
2. To check the given number is odd or even
3. To find the sum of N numbers
4. Exit
*/
#include <stdio.h>
#include <stdlib.h>
#define TRUE 1
#define PI 3.1415
int main()
{
    int choice, n, N;
    float r, a, num, sum;
    printf("1. Find area of circle\n");
    printf("2. Check the given number is odd or even\n");
    printf("3. Find the sum of N numbers\n");
    printf("4. Exit\n");
    while (TRUE)
    {
        printf("Enter a choice: ");
        scanf("%d", &choice);
        switch (choice)
        {
        case 1:
            printf("Enter radius: ");
            scanf("%f", &r);
            a = PI * r * r;
            printf("Area of a circle is %f\n", a);
            break;

        case 2:
            printf("Enter a number: ");
            scanf("%d", &n);
            if (n % 2 == 0)
            {
                printf("%d is even\n", n);
            }
            else
            {
                printf("%d is odd\n", n);
            }
            break;

        case 3:
            sum = 0;
            printf("Enter value of N: ");
            scanf("%d", &N);
            printf("Enter %d numbers: ", N);
            for (int i = 0; i < N; i++)
            {
                scanf("%f", &num);
                sum += num;
            }
            printf("Sum = %f\n", sum);
            break;

        case 4:
            exit(0);
        default:
            printf("Wrong choice! Try again\n");
        }
    }
    return 0;
}
```

```
> ./question4
1. Find area of circle
2. Check the given number is odd or even
3. Find the sum of N numbers
4. Exit
Enter a choice: 1
Enter radius: 4
Area of a circle is 50.264000
Enter a choice: 2
Enter a number: 3
3 is odd
Enter a choice: 3
Enter value of N: 3
Enter 3 numbers: 2 3 4
Sum = 9.000000
Enter a choice: 677
Wrong choice! Try again
Enter a choice: 4

~/Documents/BCA/2nd Sem/C/College_Assignment/assignment14
```

```c
1   /*
2   Program to print the following outputs using for loops:
3   1
4   2    2
5   3    3    3
6   4    4    4    4
7   5    5    5    5    5
8   */
9
10  #include <stdio.h>
11  int main()
12  {
13      for (int i = 1; i <= 5; i++)
14      {
15          for (int j = 1; j <= i; j++)
16          {
17              printf("%d\t", i);
18          }
19          printf("\n");
20      }
21      return 0;
22  }
```

```
> ./question5
1
2       2
3       3       3
4       4       4       4
5       5       5       5       5

~/Documents/BCA/2nd Sem/C/College_Assignment/assignment14  []
```

```c
/*
WAP to display following:
1
2   3
3   4   5
4   5   6   7
5   6   7   8
*/

#include <stdio.h>
int main()
{
    int p;
    for (int i = 0; i <= 4; i++)
    {
        for (int j = 0; j <= i; j++)
        {
            p = (i + j) + 1;
            printf("%d\t", p);
        }
        printf("\n");
    }
    return 0;
}
```

```
> ./question6
1
2       3
3       4       5
4       5       6       7
5       6       7       8       9
```

~/Documents/BCA/2nd Sem/C/College_Assignment/**assignment14**

```c
1   /*
2   Program to display the following:
3   1
4   1   1
5   1   1   1
6   1   1   1   1
7   1   1   1   1   1
8   */
9
10  #include <stdio.h>
11  int main()
12  {
13      for (int i = 1; i <= 5; i++)
14      {
15          for (int j = 1; j <= i; j++)
16          {
17              printf("%d\t",1);
18          }
19          printf("\n");
20      }
21      return 0;
22  }
```

```
> ./question7
1
1       1
1       1       1
1       1       1       1
1       1       1       1       1
```

~/Documents/BCA/2nd Sem/C/College_Assignment/**assignment14**

```c
1   // C program to input an integer number and checks whether it is a prime number.
2   #include <stdio.h>
3   int main()
4   {
5       int i, num;
6       printf("Enter a number: ");
7       scanf("%d", &num);
8       for (i = 2; i < num; i++)
9       {
10          if (num % i == 0)
11          {
12              printf("%d is not a prime number.", num);
13              break;
14          }
15      }
16      if (i == num)
17          printf("%d is a prime number.", num);
18
19      return 0;
20  }
```

```
> ./question8
Enter a number: 5
5 is a prime number.%
> ./question8
Enter a number: 8
8 is not a prime number.%
> ./question8
Enter a number: 123
123 is not a prime number.%
```

~/Documents/BCA/2nd Sem/C/College_Assignment/**assignment14**