

Basic Programs

- a) Ramesh's basic salary is input through the keyboard. His dearness Allowance is 40% of basic salary, and house rent allowance is 20% of basic salary. Write a program to calculate his gross salary.
- b) The distance between two cities (in km.) is input through the keyboard. Write a program to convert and print this distance in meters, feet, inches and centimeters.
- c) If the marks obtained by a student in five different subjects are input through the keyboard, write a program to find out the aggregate marks and percentage marks obtained by the student. Assume that the maximum marks that can be obtained by a student in each subject is 100.
- d) Temperature of a city in Fahrenheit degrees is input through the keyboard. Write a program to convert this temperature into centigrade degrees.
- e) The length and breadth of a rectangle and radius of a circle are input through the keyboard. Write a program to calculate the area and perimeter of the rectangle, and the area and circumference of the circle.
- f) Paper of size A0 has dimensions 1189 mm x 841 mm. Each subsequent size A (n) is defined as A (n-1) cut in half parallel to its shorter sides. Thus paper of size A1 would have dimensions 841 mm x 594 mm. Write a program to calculate and print paper sizes A0, A1, A2, ..., A8.
- g) If a five-digit number is input through the keyboard, write a program to calculate the sum of its digits. (Hint: Use the modulus operator '%')
- h) If a five-digit number is input through the keyboard, write a program to reverse the number.
- i) If lengths of three sides of a triangle are input through the keyboard, write a program to find the area of the triangle.
- j) Write a program to receive Cartesian co-ordinates (x, y) of a point and convert them into polar co-ordinates (r, ϕ).
Hint: $r = \sqrt{x^2 + y^2}$ and $\phi = \tan^{-1}(y/x)$.
- k) Write a program to receive values of latitude (L1, L2) and longitude (G1, G2), in degrees, of two places on the earth and output the distance (D) between them in nautical miles. The formula for distance in nautical miles is:
$$D = 3963 \cos^{-1}(\sin L1 + \sin L2 + \cos L1 \cos L2 * \cos (G2 - G1))$$
- l) Wind chill factor is the felt air temperature on exposed skin due to wind. The wind chill temperature is always lower than the air temperature, and is calculated as per the following formula:
$$wcf = 35.74 + 0.6215t + (0.4275t - 35.75)v^{0.16}$$

where t is the temperature and v is the wind velocity. Write a program to receive values of t and v and calculate wind chill factor (wcf).
- m) If value of an angle is input through the keyboard, write a program to print all its Trigonometric ratios.
- n) Two numbers are input through the keyboard into two locations C and D. Write a program to interchange the contents of C and D.
- o) Two numbers are input through the keyboard into two locations C and D. Write a program to interchange the contents of C and D without using third variable.
- p) Two numbers are input through the keyboard into two locations C and D. Write a program to interchange the contents of C and D without using third variable and without using arithmetic operator.
- q) Consider a currency system in which there are notes of seven denominations, namely, Re.1, Rs.2, Rs.5, Rs.10, Rs.50, Rs.100. If a sum of Rs. N is entered through the keyboard, write a program to compute the smallest number of notes that will combine to give Rs. N.

Use only if condition (que 1 to 5)

1. While purchasing certain items, a discount of 10% is offered if the quantity purchased is more than 1000. If quantity and price per item are input through the keyboard, write a program to calculate the total expenses.
2. Input two numbers and check whether they are equal or not.
3. Write a C program to read the age of a candidate and determine whether it is eligible for casting his/her own vote.
4. check if 3 nos are taken through input if yes, then multiply and add them.
5. The current year and the year in which the employee joined the organization are entered through the keyboard. If the number of years for which the employee has served the organization is greater than 3 then a bonus of Rs. 2500/- is given to the employee. If the years of service are not greater than 3, then the program should do nothing
6. WAP to calculate energy bill .Read the starting and ending metre readings . if the consumed electricity energy is greater than or equal to 200 units the rate should be 2.50 /unit otherwise 1.50/unit.
7. In a company an employee is paid as under: If his basic salary is less than Rs. 1500, then HRA = 10% of basic salary and DA = 90% of basic salary. If his salary is either equal to or above Rs. 1500, then HRA = Rs. 500 and DA = 98% of basic salary. If the employee's salary is input through the keyboard write a program to find his gross salary.
8. If cost price and selling price of an item is input through the keyboard, write a program to determine whether the seller has made profit or incurred loss. Also determine how much profit he made or loss he incurred
9. A five-digit number is entered through the keyboard. Write a program to obtain the reversed number and to determine whether the original and reversed numbers are equal or not.
10. Write a C program to find maximum between three numbers.
11. If the ages of Ram, Shyam and Ajay are input through the keyboard, write a program to determine the youngest of the three.
12. Write a program to check whether a triangle is valid or not, when the three angles of the triangle are entered through the keyboard. A triangle is valid if the sum of all the three angles is equal to 180 degrees.

13. Given the length and breadth of a rectangle, write a program to find whether the area of the rectangle is greater than its perimeter. For example, the area of the rectangle with length = 5 and breadth = 4 is greater than its perimeter.
14. Given three points (x_1, y_1) , (x_2, y_2) and (x_3, y_3) , write a program to check if all the three points fall on one straight line.
15. The marks obtained by a student in 5 different subjects are input through the keyboard. The student gets a division as per the following rules:
- Percentage above or equal to 60 - First division
 - Percentage between 50 and 59 - Second division
 - Percentage between 40 and 49 - Third division
 - Percentage less than 40 - Fail
- Write a program to calculate the division obtained by the student.

Solve above program by Nested if else , if ladder(logical operator) and elseif

16. A company insures its drivers in the following cases:
- If the driver is married.
 - If the driver is unmarried, male & above 30 years of age.
 - If the driver is unmarried, female & above 25 years of age.
- In all other cases the driver is not insured. If the marital status, sex and age of the driver are the inputs, write a program to determine whether the driver is to be insured or not.

Solve above program by Nested if else , if ladder(logical operator) and elseif

17. Write a C program to find maximum between two numbers.
18. Write a C program to check whether a number is negative, positive .
19. Write a C program to check whether a number is negative, positive or zero.
20. Write a C program to check whether a number is divisible by 5 and 11 or not.
21. Write a C program to check whether a number is even or odd.
22. Write a C program to check whether a year is leap year or not.
23. Write a C program to check whether a character is alphabet or not.
24. Write a C program to input any alphabet and check whether it is vowel or consonant.
25. Write a C program to input any character and check whether it is alphabet, digit or special character.
26. Write a C program to check whether a alphabet is uppercase or lowercase alphabet
27. Write a C program to input week number and print week day.
28. Write a C program to input month number and print number of days in that month.
29. Write a C program to count total number of notes in given amount.
30. Write a C program to input angles of a triangle and check whether triangle is valid or not.
31. Write a C program to input all sides of a triangle and check whether triangle is valid or not.
32. Write a C program to check whether the triangle is equilateral, isosceles or scalene triangle or right angled triangle.
33. Write a C program to find all roots of a quadratic equation.

34. Write a C program to calculate profit or loss.
35. Write a C program to input marks of five subjects Physics, Chemistry, Biology, Mathematics and Computer. Calculate percentage and grade according to following:
 Percentage $\geq 90\%$: Grade A
 Percentage $\geq 80\%$: Grade B
 Percentage $\geq 70\%$: Grade C
 Percentage $\geq 60\%$: Grade D
 Percentage $\geq 40\%$: Grade E
 Percentage $< 40\%$: Grade F
36. Write a C program to input basic salary of an employee and calculate its Gross salary according to following:
 Basic Salary ≤ 10000 : HRA = 20%, DA = 80%
 Basic Salary ≤ 20000 : HRA = 25%, DA = 90%
 Basic Salary > 20000 : HRA = 30%, DA = 95%
37. Write a C program to input electricity unit charges and calculate total electricity bill according to the given condition:
 For first 50 units Rs. 0.50/unit
 For next 100 units Rs. 0.75/unit
 For next 100 units Rs. 1.20/unit
 For unit above 250 Rs. 1.50/unit
 An additional surcharge of 20% is added to the bill
38. Any year is entered through the keyboard, write a program to determine whether the year is leap or not. Use the logical operators $\&\&$ and $\|\|$.
39. Any character is entered through the keyboard, write a program to determine whether the character entered is a capital letter, a small case letter, a digit or a special symbol. The following table shows the range of ASCII values for various characters.

Characters	ASCII Values
A – Z	65 – 90
a – z	97 – 122
0 – 9	48 – 57
special symbols	0 - 47, 58 - 64, 91 - 96, 123 - 127

40. A library charges a fine for every book returned late. For first 5 days the fine is 50 paise, for 6-10 days fine is one rupee and above 10 days fine is 5 rupees. If you return the book after 30 days your membership will be cancelled. Write a program to accept the number of days the member is late to return the book and display the fine or the appropriate message.
41. An Insurance company follows following rules to calculate premium.

- (1) If a person's health is excellent and the person is between 25 and 35 years of age and lives in a city and is a male then the premium is Rs. 4 per thousand and his policy amount cannot exceed Rs. 2 lakhs.
- (2) If a person satisfies all the above conditions except that the sex is female then the premium is Rs. 3 per thousand and her policy amount cannot exceed Rs. 1 lakh.
- (3) If a person's health is poor and the person is between 25 and 35 years of age and lives in a village and is a male then the premium is Rs. 6 per thousand and his policy cannot exceed Rs. 10,000.
- (4) In all other cases the person is not insured.

Write a program to output whether the person should be insured or not, his/her premium rate and maximum amount for which he/she can be insured.

42. A university has the following rules for a student to qualify for a degree with A as the main subject and B as the subsidiary subject:

- (a) He should get 55 percent or more in A and 45 percent or more in B.
- (b) If he gets than 55 percent in A he should get 55 percent or more in B. However, he should get at least 45 percent in A.
- (c) If he gets less than 45 percent in B and 65 percent or more in A he is allowed to reappear in an examination in B to qualify.
- (d) In all other cases he is declared to have failed.

Write a program to receive marks in A and B and Output whether the student has passed, failed or is allowed to reappear in B.

43. Write a program to calculate the salary as per the following table:

Gender	Years of Service	Qualifications	Salary
Male	≥ 10	Post-Graduate	15000
	≥ 10	Graduate	10000
	< 10	Post-Graduate	10000
	< 10	Graduate	7000
Female	≥ 10	Post-Graduate	12000
	≥ 10	Graduate	9000
	< 10	Post-Graduate	10000
	< 10	Graduate	6000

44 . Write a C program to input marks of five subjects Physics, Chemistry, Biology, Mathematics and Computer. Calculate percentage and grade according to following:

Percentage $\geq 90\%$: Grade A

Percentage $\geq 80\%$: Grade B

Percentage $\geq 70\%$: Grade C

Percentage $\geq 60\%$: Grade D

Percentage $\geq 40\%$: Grade E

Percentage $< 40\%$: Grade F

45 . Write a C program to input basic salary of an employee and calculate its Gross salary according to following:

Basic Salary \leq 10000 : HRA = 20%, DA = 80%

Basic Salary \leq 20000 : HRA = 25%, DA = 90%

Basic Salary $>$ 20000 : HRA = 30%, DA = 95%

46 . Write a C program to input electricity unit charges and calculate total electricity bill according to the given condition:

For first 50 units Rs. 0.50/unit

For next 100 units Rs. 0.75/unit

For next 100 units Rs. 1.20/unit

For unit above 250 Rs. 1.50/unit

An additional surcharge of 20% is added to the bill

List of Simple Loop Programs

1. Write a program to calculate overtime pay of 10 employees. Overtime is paid at the rate of Rs. 12.00 per hour for every hour worked above 40 hours. Assume that employees do not work for fractional part of an hour.
2. Write a program to find the factorial value of any number entered through the keyboard.
3. Two numbers are entered through the keyboard. Write a program to find the value of one number raised to the power of another.
4. Write a program to print all the ASCII values and their equivalent characters using a while loop. The ASCII values vary from 0 to 255.
5. Write a program to print out all Armstrong numbers between 1 and 500. If sum of cubes of each digit of the number is equal to the number itself, then the number is called an Armstrong number. For example, $153 = (1 * 1 * 1) + (5 * 5 * 5) + (3 * 3 * 3)$
6. Write a program for a matchstick game being played between the computer and a user. Your program should ensure that the computer always wins. Rules for the game are as follows:
There are 21 matchsticks. – The computer asks the player to pick 1, 2, 3, or 4 matchsticks. – After the person picks, the computer does its picking. – Whoever is forced to pick up the last matchstick loses the game.
7. Write a program to enter the numbers till the user wants and at the end it should display the count of positive, negative and zeros entered.
8. Write a program to find the octal equivalent of the entered number.
9. Write a program to find the range of a set of numbers. Range is the difference between the smallest and biggest number in the list.

10. Write a C program to print all natural numbers from 1 to n. using while loop
11. Write a C program to print all natural numbers in reverse (from n to 1). - using while loop
12. Write a C program to print all alphabets from a to z. - using while loop
13. Write a C program to print all even numbers between 1 to 100. - using while loop
14. Write a C program to print all odd number between 1 to 100.
15. Write a C program to find sum of all natural numbers between 1 to n.
16. Write a C program to find sum of all even numbers between 1 to n.
17. Write a C program to find sum of all odd numbers between 1 to n.
18. Write a C program to print multiplication table of any number.
19. Write a C program to count number of digits in a number.
20. Write a C program to find first and last digit of a number.
21. Write a C program to find sum of first and last digit of a number.
22. Write a C program to swap first and last digits of a number.
23. Write a C program to calculate sum of digits of a number.
24. Write a C program to calculate product of digits of a number.
25. Write a C program to enter a number and print its reverse.
26. Write a C program to check whether a number is palindrome or not.
27. Write a C program to find frequency of each digit in a given integer.
28. Write a C program to enter a number and print it in words.
29. Write a C program to print all ASCII character with their values.
30. Write a C program to find all factors of a number.
31. Write a C program to find HCF (GCD) of two numbers.
32. Write a C program to find LCM of two numbers.
33. Write a C program to check whether a number is Prime number or not.
34. Write a C program to print all Prime numbers between 1 to n.
35. Write a C program to find sum of all prime numbers between 1 to n.
36. Write a C program to find all prime factors of a number.
37. Write a C program to check whether a number is Armstrong number or not.
38. Write a C program to print all Armstrong numbers between 1 to n.
39. Write a C program to check whether a number is Perfect number or not.
40. Write a C program to print all Perfect numbers between 1 to n.

41. Write a C program to check whether a number is Strong number or not.
42. Write a C program to print all Strong numbers between 1 to n.
43. Write a C program to print Fibonacci series up to n terms.
44. Write a program to print all prime numbers from 1 to 300. (Hint: Use nested loops, break and continue)
45. Write a program to fill the entire screen with a smiling face. The smiling face has an ASCII value 1.
46. Write a program to generate all combinations of 1, 2 and 3 using for loop.
47. According to a study, the approximate level of intelligence of a person can be calculated using the following formula:

$$i = 2 + (y + 0.5x)$$

Write a program, which will produce a table of values of i, y and x, where y varies from 1 to 6, and, for each value of y, x varies from 5.5 to 12.5 in steps of 0.5

48. Write a program to fill the entire screen with diamond and heart alternatively. The ASCII value for heart is 3 and that of diamond is 4.
49. Write a program to print the multiplication table of the number entered by the user. The table should get displayed in the following form. 29 * 1 = 29 29 * 2 = 58 ...
50. A machine is purchased which will produce earning of Rs. 1000 per year while it lasts. The machine costs Rs. 6000 and will have a salvage of Rs. 2000 when it is condemned. If 12 percent per annum can be earned on alternate investments what would be the minimum life of the machine to make it a more attractive investment compared to alternative investment?
51. When interest compounds q times per year at an annual rate of r % for n years, the principle p compounds to an amount a as per the following formula

$$a = p (1 + r / q)^{nq}$$

Write a program to read 10 sets of p, r, n & q and calculate the corresponding a.

List of star pattern programming exercises

```
*****
*****
*****
*****
*****
```

1. Square Star Pattern

```
*****
*   *
*   *
*   *
*   *
*****
```

2. Hollow Square Star Pattern

```
*****
** **
* * *
** **
*****
```

3. Hollow Square Star Pattern with Diagonal

```
*****
*****
*****
*****
*****
```

4. Rhombus Star Pattern

```
*****
*   *
*   *
*   *
*   *
*****
```

5. Hollow Rhombus Star Pattern

```
*****
*****
*****
*****
*****
```

6. Mirrored Rhombus Star Pattern

```

*****
 *   *
 *   *
 *   *
 *   *
*****

```

7. Hollow Mirrored Rhombus Star Pattern

```

*
**
***
****
*****

```

Right Triangle Star Pattern

```

1
22
333
4444
55555

```

```

5
44
333
2222
11111

```

```

1
21
321
4321
54321

```

```

1
12
123
1234
12345

```

```

5
54
543
5432
54321

```

```

5
45
345
2345
12345

```

1
123
12345
1234567
123456789

Number pattern 39

1
24
135
2468
13579

Number pattern 40

1
131
13531
1357531
135797531

Number pattern 41

2
242
24642
2468642
2468108642

Number pattern 42

1
121
12321
1234321
123454321

Number pattern 43

1
32
4543
567654
67898765

Number pattern 44

1
2 3
4 5 6
7 8 9 10
11 12 13 14 15

Number pattern 45

1
21
123
4321
12345

Number pattern 46

1
23
4567
89123456
7891234567891234

1
23
345
4567
56789

1
10
101
1010
10101

Number pattern 35

1
00
111
0000
11111

Number pattern 36

1
01
010
1010
10101

Number pattern 37

1
11
101
1001
11111

Number pattern 38

Number pattern 48

```
1
2 6
3 7 10
4 8 11 13
5 9 12 14 15
```

Number pattern 49

```
1
2 4
7 11 16
22 29 37 46
56 67 79 92 106
```

Number pattern 50

```
1
3 2
4 5 6
10 9 8 7
11 12 13 14 15
```

Number pattern 51

```
1
22
333
2222
11111
```

Number pattern 52

```
*
**
* *
* *
*****
```

Hollow Right Triangle Star Pattern

```
  *
 **
***
****
*****
```

Mirrored Right Triangle Star Pattern

```
  *
 **
* *
* *
*****
```

Hollow Mirrored Right Triangle Star Pattern

```

*****
*****
***
**
*

```

Inverted Right Triangle Star Pattern

```

*****
*   *
*   *
**
*

```

Hollow Inverted Right Triangle Star Pattern

```

*****
*****
***
**
*

```

Inverted Mirrored Right Triangle Star Pattern

```

*****
*   *
*   *
**
*

```

Hollow Inverted Mirrored Right Triangle Star Pattern

```

*
***
*****
*****
*****

```

Pyramid Star Pattern

```

*
* *
* *
* *
*****

```

Hollow Pyramid Star Pattern

```

*****
*****
****
***
**
*

```

Inverted Pyramid Star Pattern

```

*****
*       *
*     *
*   *
* *
*

```

Hollow Inverted Pyramid Star Pattern

```

*
**
***
****
*****
*****
****
***
**
*

```

Half Diamond Star Pattern

```

*
**
***
****
*****
*****
****
***
**
*

```

Mirrored Half Diamond Star Pattern

```

*
***
*****
*****
*****
*****
*****
***
*

```

Diamond Star Pattern

```

*****
****  ****
***    ***

```



```

**      **
*        *
*        *
**      **
***     ***
****    ****
*****

```

Hollow Diamond Star Pattern

```

*****
  ****
    ***
      **
        *
      **
    ***
  ****
*****

```

Right Arrow Star Pattern

```

    *****
   ****
  ***
 **
*
 **
 ***
  ****
   *****

```

Left Arrow Star Pattern

```

  +
  +
  +
  +
+++++++
  +
  +
  +
  +

```

Plus Star Pattern

```

*        *
*        *
 *      *
  *    *
   *   *
    *  *
     *
    *  *
   *   *
  *    *
 *      *
*        *

```

X Star Pattern

Eight Star Pattern

Heart Star Pattern

Heart Star Pattern with Name

List of Number pattern programming exercises

Square number patterns

```
11111
11111
11111
11111
11111
```

Number pattern 1

```
11111
00000
11111
00000
11111
```

Number pattern 2

```
01010
01010
01010
01010
01010
```

Number pattern 3

```
11111
10001
10001
10001
10001
11111
```

Number pattern 4

```
11111
11111
11011
11111
11111
```

Number pattern 5

```
10101
01010
10101
01010
10101
```

Number pattern 6

11011
11011
00000
11011
11011

Number pattern 7

10001
01010
00100
01010
10001

Number pattern 8

01110
10001
10001
10001
01110

Number pattern 9

11111
22222
33333
44444
55555

Number pattern 10

12345
12345
12345
12345
12345

Number pattern 11

12345
23456
34567
45678
56789

Number pattern 12

1 2 3 4 5
6 7 8 9 10
11 12 13 14 15
16 17 18 19 20

21 22 23 24 25

Number pattern 13

55555
54444
54333
54322
54321

Number pattern 14

12345
23455
34555
45555
55555

Number pattern 15

12345
23451
34521
45321
54321

Number pattern 16

12345
21234
32123
43212
54321

Number pattern 17

5 5 5 5 5 5 5 5 5
5 4 4 4 4 4 4 4 5
5 4 3 3 3 3 3 4 5
5 4 3 2 2 2 3 4 5
5 4 3 2 1 2 3 4 5
5 4 3 2 2 2 3 4 5
5 4 3 3 3 3 3 4 5
5 4 4 4 4 4 4 4 5
5 5 5 5 5 5 5 5 5

Number pattern 18

1	2	3	4	5
16	17	18	19	6
15	24	25	20	7
14	23	22	21	8
13	12	11	10	9

Number pattern 19

Triangle Easy Number Patterns

55555
4444
333
22
1

Number pattern 21

11111
2222
333
44
5

Number pattern 22

Number pattern 24

12345
1234
123
12
1

Number pattern 25

Number pattern 26

54321
4321
321
21
1

Number pattern 27

Number pattern 28

54321
5432
543
54
5

Number pattern 29

Number pattern 30

12345
2345
345
45
5

Number pattern 31

Number pattern 32

56789
4567
345
23
1

Number pattern 33

13579
3579
579
79
9

Number pattern 34

Triangle 0,1 Easy Number Patterns

Triangle Hard Number Patterns

Number pattern 47

1 1
12 21
123 321
1234 4321
1234554321

N = 12345

12345
1234
123
12
1

Number pattern 53

N = 12345

12345
2345
345
45
5

Number pattern 54

Diamond Number Patterns

1
12
123
1234
12345
1234
123
12
1

Number pattern 55

1
123
12345
1234567
123456789
1234567
12345
123
1

Number pattern 56

1
121
12321
1234321
123454321
1234321
12321
121
1

Number pattern 57

*
1
121


```

*12321*
*1234321*
*123454321*
*1234321*
*12321*
*121*
*1*
*

```

Number pattern 58

Tricky Number Patterns

```

1         1
2         2
3       3
4     4
5
4     4
3       3
2         2
1         1

```

Number pattern 59

List of Array(1D and 2D) Programming

1. Write a C program to read and print elements of array.
2. Write a C program to print all negative elements in an array.
3. Write a C program to find sum of all array elements.
4. Write a C program to find maximum and minimum element in an array.
5. Write a C program to find second largest element in an array.
6. Write a C program to count total number of even and odd elements in an array.
7. Write a C program to count total number of negative elements in an array.
8. Write a C program to copy all elements from an array to another array.
9. Write a C program to insert an element in an array.
10. Write a C program to delete an element from an array at specified position.
11. Write a C program to count frequency of each element in an array.
12. Write a C program to print all unique elements in the array.
13. Write a C program to count total number of duplicate elements in an array.
14. Write a C program to delete all duplicate elements from an array.
15. Write a C program to merge two array to third array.
16. Write a C program to find reverse of an array.
17. Write a C program to put even and odd elements of array in two separate array.
18. Write a C program to search an element in an array.
19. Write a C program to sort array elements in ascending or descending order.
20. Write a C program to sort even and odd elements of array separately.
21. Write a C program to left rotate an array.
22. Write a C program to right rotate an array.

List of matrix programming exercises

23. Write a C program to add two matrices.
24. Write a C program to subtract two matrices.
25. Write a C program to perform Scalar matrix multiplication.
26. Write a C program to multiply two matrices.
27. Write a C program to check whether two matrices are equal or not.
28. Write a C program to find sum of main diagonal elements of a matrix.
29. Write a C program to find sum of minor diagonal elements of a matrix.
30. Write a C program to find sum of each row and column of a matrix.
31. Write a C program to interchange diagonals of a matrix.
32. Write a C program to find upper triangular matrix.
33. Write a C program to find lower triangular matrix.

34. Write a C program to find sum of upper triangular matrix.
35. Write a C program to find sum of lower triangular matrix.
36. Write a C program to find transpose of a matrix.
37. Write a C program to find determinant of a matrix.
38. Write a C program to check Identity matrix.
39. Write a C program to check Sparse matrix.
40. Write a C program to check Symmetric matrix.