

Day 5

Assignment

1. Initialize an integer array of size 12 with the following values, (each initialized to the maximum no. of days in a month). Accept month and year as integers from the user and display the maximum day in that month.

Note: Care has to be taken in case of leap year (Feb will be 29 days).

31 28 31 30 31 30 31 31 30 31 30 31

2. Write a program to find out whether a matrix is symmetric or not. A matrix is symmetric if transpose of a matrix is equal to the matrix.
3. Print the addition of maximum and minimum value in the single dimension array of size 10.
4. Write a program to sort a single dimension array using selection sort.
5. Write a program to search an element in 1-D array and if the element is found then print the position of the element using linear search.
6. Write a program to search an item in given single dimension array using binary search.
7. Write a program to modify the elements of the array such that the last element becomes the first element of the array and all other elements are shifted to right.

1 2 3 4 5 6 7 8 9 10 -> 10 1 2 3 4 5 6 7 8 9

8. Write a program to print the Pascal triangle using 2-D array.

```
1
1 1
1 2 1
1 3 3 1
1 4 6 4 1
1 5 10 10 5 1
```

9. Write a program to insert new elements into sorted array.
10. Write a program to merge the two single dimension array into sorted order.

