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B.Tech II year I semester CSE(S2)

Course name : Object Oriented Programming through C++ lab

Week - 03 (21-08-2023) task

1. Consider the following code

```
void findMMM(const int* p,const int& n,double& mean,double& median,int& mode){
        // write the code to calculate min and max
}
int max(){
    int *p,n,mode;
    double mean,median;
    //write the code for allocating the memory dynamically for n elements
    findMMM(p,n,mean,median,mode);
    cout<<"Mean  = "<<mean<<endl;
    cout<<"Median = "<<median<<endl;
}
```

2. The function will shuffle the elements in the array by given in the pattern(which consists indexes of array elements)

A=[10,5,12,14,2] pattern=[2,1,4,5,3]

After shuffling A according to given pattern is

A=[5,10,14,2,12] i.e., a[1] =a[2],a[2]=a[1],a[3]=a[4],a[4]=a[5],a[5]=a[3]

```
void shuffle(int[] a, int n ,const int* pattern){
        //write the code to shuffle the elements in an array specified in the pattern
}
int main(){
    read array A and Pattern P
    print the array before and after shuffling the array A.
    return 0;
}
```

3. The function will rotate the elements in the array in clock wise direction i.e., A=[2,3,4,5,6] can be changed to A=[3,4,5,6,2] i.e., a[0]=a[4], a[1]=a[2],a[2]=a[3],a[3]=a[4],a[4]=a[0];

```
void rotate(int[] a, int n){
        //write the code to rotate the elements in an array specified in the pattern
}
int main(){
    read array A and Pattern P
    print the array before and after rotating the array A.
    return 0;
```

}

4. Create a spinwheel that contains 3 arrays A,B,and C that contains 0 to 9 integers.

0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

Rotate &
Shuffle

8	2	5
9	3	6
0	4	7
1	5	8
2	6	9
3	7	0
4	8	1
5	9	2
6	0	3
7	1	4

Hint:

```
struct wheel {
    int a[10],b[10],c[10];
};
```

use shuffle to initialize the array in the wheel

use rotate function to spin the wheel.

Check in the main whether any of the combination met the 7 7 7.