

1.

```
#include<stdio.h>
int cirQueue[100] ;
int front = -1 , rear = -1 , size;
void enqueue(int x){
    if((front == 0 && rear == size-1) || (front == (rear+1)%size)){
        printf("OVERFLOW\n");
        return;
    }
    else if(front == -1){
        front = rear = 0;
        cirQueue[rear] = x;
    }
    else if(rear == size -2 && front != 0){
        rear = 0;
        cirQueue[rear] = x;
    }
    else{
        rear++;
        cirQueue[rear] = x;
    }
}

void dequeue(){
    if(front == -1){
        printf("UNDERFLOW\n");
        return;
    }
    printf("%d is deleted\n",cirQueue[front]);
    if(front == rear){
        front = rear = -1;
    }
    else if(front == size-1)
        front = 0;
    else
        front++;
}

void display(){
    int i;
    for (int i = front; i < rear ; i++)
        printf("%d\t",cirQueue[i]);

    printf("\n");
}
```

```

int main(){

    printf("Enter size of QUEUE\n");
    scanf("%d",&size);
    int x;
    for (int i = 0; i < size; i++)
    {
        printf("Enter data to QUEUE\n");
        scanf("%d",&x);
        enqueue(x);
    }
    display();
    dequeue();
    display();
    dequeue();
    display();
    return 0;

}

```

2.

```
#include<stdio.h>
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int main(){

    int size;
    printf("Enter input size\n");
    scanf("%d ", &size);
    long long inp[size],p=1,c=0;
    for (int i = 0; i < size; i++)
        scanf("%lld",&inp[i]);
    for (int i = 0; i < size; i++)
    {
        long x = inp[i];
        while (x%10 == 0)
        {
            c++;
            x=x/10;
        }
        p *= x;
    }
    printf("%lld",p);
    for (int i = 0; i < c; i++)
    {
        printf("0");
    }
}

```

```

    printf("\n");
    return 0;
}

```

3.

```

#include<stdio.h>
int stack[100], minStack[100], minTop = 0, top = -1, size;

void push(int x){
    if(top == size - 1){
        printf("OVERFLOW\n");
        return;
    }
    stack[++top];
    if(minStack[minTop] > x){
        minStack[++minTop] = x;
    }
    else{
        int i = minTop;
        minStack[++minTop] = minStack[i];
    }
}

void pop(){
    if(top == -1){
        printf("UNDERFLOW\n");
        return;
    }
    top = top - 1;
    minTop = minTop - 1;
}

int minEleme(){
    return minStack[minTop];
}

int main(){
    printf("Enter size of STACK\n");
    scanf("%d",&size);
    int x;
    minStack[0] = 999;
    for (int i = 0; i < size; i++)
    {
        printf("Enter data to STACK\n");
        scanf("%d",&x);
        push(x);
    }
    printf("min elemnt %d\n",minEleme());
    pop();
}

```

```
printf("min elemnt %d\n",minEleme());  
return 0;
```

```
}
```