LINEAR QUEUE

```
#include <stdio.h>
#define MAX 5
int queue[MAX];
int rear=-1,front=-1;
void insert()
{
   int add_item;
   if (rear == MAX - 1)
   printf("Queue Overflow \n");
   else
   {
      if (front == - 1)
           front = 0;
      printf("Enter the element to be inserted:");
      scanf("%d", &add_item);
      rear = rear + 1;
      queue[rear] = add_item;
   }
}

void delete()
{
   if (front == - 1 || front > rear)
   {
      printf("Queue Underflow \n");
      return ;
   }
   else
   {
      printf("Element deleted from queue is : %d\n", queue[front]);
```

```
        front = front + 1;
    }
}

void display()
{
    int i;
    if (front == - 1)
        printf("Queue is empty \n");
    else
    {
        printf("Queue is : \n");
        for (i = front; i <= rear; i++)
            printf("%d \n", queue[i]);
        printf("\n");
    }
}


main()
{
    int choice;
    while (1)
    {
        printf("1:INSERT \n");
        printf("2:DELETE\n");
        printf("3:DISPLAY\n");
        printf("4.EXIT\n");
        printf("Enter your choice : ");
        scanf("%d", &choice);
        switch (choice)
```

```
    {
      case 1:
      insert();
      break;
      case 2:
      delete();
      break;
      case 3:
      display();
      break;
      case 4:
      exit(1);
      default:
      printf("Wrong choice \n");
    }
  }
}
```