Date: 16/10/2020.

DISHA B
1BM19CS052.

```
#include <stdio.h>
#include <stdlib.h>
#define MAX 5
int front=0;
int rear=-1;
int queue[MAX];

void Enque(int);
int Deque();
void display();
int main(int argc, char**argv)
{
   int option;
   int item;
   do
   {
     printf("\n 1. Insert to Queue (Enqueue)");
     printf("\n 2. delete from the Queue (Dequeue)");
     printf("\n 3. Display the content");
     printf("\n 4. Exit\n");
     printf("Enter the option:");
     scanf("%d", &option);
     switch(option)
     {
        case 1: printf("Enter the element\n");
                scanf("%d",&item);
                Enque(item);
                break;
        case 2: item = Deque();
                if(item==-1)
                    printf("Queue is empty\n");
                else
```

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```
        printf("Removed element from queue %d", item);
        break;
    case 3: display();
        break;
    case 4: exit(0);
    }
}while(option!=4)
  return 0;
}

void Enque(int ele)
{
  if (rear == MAX-1)
     printf("Queue is full\n");
  else
     {
       rear++;
       queue[rear] = ele;
     }
}
int Deque()
{
   int item;
   if (front == -1)
        return -1;
   else
   {
      item = queue[front];
      front++;
      if (front > rear)
      {
```

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