```
//Queue

# include <stdio.h>
# include <conio.h>

# define SIZE 10

int front=-1, rear=-1;

int queue[SIZE];

void main()
{
 int choice;

 void insert();
 void delet();
 void display();
 void search();
 void update();

 do
 {
  clrscr();

  printf("\n\t1. Insert");
  printf("\n\t2. Delete");
  printf("\n\t3. Display");
  printf("\n\t4. Search");
  printf("\n\t5. Update");
  printf("\n\t0. Exit");

  printf("\n\tEnter your choice : ");
  scanf("%d", &choice);

  switch(choice)
  {
   case 1:
    insert();
    break;
   case 2:
    delet();
    break;
   case 3:
    display();
    break;
   case 4:
    search();
    break;
   case 5:
    update();
    break;
   case 0:
   printf("\n\tEnd of Program");
    break;
```

```
   default:
   printf("\n\tInvalid Choice");
    break;
  }
  getch();
 }
 while(choice != 0);
}


void insert()
{
 if(rear == SIZE-1)
 {
  printf("\n\tQueue is full / Overflow");
 }
 else
 {
  rear++;
  printf("\n\tEnter any number : ");
  scanf("%d", &queue[rear]);

  if(front == -1)
  {
   front = 0;
  }
 }
}

void delet()
{
 if(front == -1)
 {
      printf("\n\tQueue is Empty / Underflow");
 }
 else
 {
 printf("\n\tDelete Value = %d", queue[front]);

  if(front == rear)
  {
   front = -1;
   rear = -1;
  }
  else
  {
   front++;
  }
 }
}

void display()
{
 int a;
```

```
 if(front == -1)
 {
     printf("\n\tQueue is Empty or Underflow");
 }
 else
 {
  for(a=front;a<=rear;a++)
  {
   printf("\n\t%d", queue[a]);
  }
 }
}

void search()
{
 int a, sv;
 if(front == -1)
 {
     printf("\n\tQueue is Empty or Underflow");
 }
 else
 {
  printf("\n\tEnter Search Value : ");
  scanf("%d", &sv);

  for(a=front;a<=rear;a++)
  {
   if(queue[a] == sv)
   {
printf("\n\tSearch value %d is found on position %d",
     sv, a-front+1);
    break;
   }
  }

  if(a == rear+1)
  {
printf("\n\tSearch value %d does not exists", sv);
  }
 }
}

void update()
{
 int a, val;
 if(front == -1)
 {
     printf("\n\tQueue is Empty / Underflow");
 }
 else
 {
  printf("\n\tEnter value to Update : ");
  scanf("%d", &val);

  for(a=front;a<=rear;a++)
```

```
  {
   if(queue[a] == val)
   {
  printf("\n\tOld Value : %d", queue[a]);

  printf("\n\tEnter New Value : ");
  scanf("%d", &queue[a]);

     printf("\n\tValue updated successfully.");

    break;
   }
  }

  if(a == rear + 1)
  {
 printf("\n\tValue %d does not exists", val);
  }
 }
}
/*
Write a C program to perform all operation of queue
on following array of structure:
 struct Player
 {
  int code;
  char name[10], city[10];
 };
*/
```