ARRAY IMPLEMENTATION IN QUEUE:

```
#include <stdio.h>
#define MAX 100
int queue_array[MAX];
int rear=-1;
int front=-1;

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

int main()
{
   int choice;
   while(1)
   {
      printf("1. insert \n");
      printf("2. delete \n");
      printf("3. display \n");
      printf("4. exit \n");
      printf("enter choice: \n");
      scanf("%d", &choice);
      switch(choice)
      {
         case 1:
            insert();
            break;
         case 2:
            delete();
            break;
         case 3:
            display();
            break;
```

```
            default:
                printf("invalid input\n");
                break;
        }
    }
}

int insert()
{
    int add_item;
    if(rear==MAX-1)
    {
        printf("queue overflow\n");
    }
    else
    {
        if(front==-1)
        {
            front=0;
        }
        printf("insert element: \n");
        scanf("%d",&add_item);
        rear++;
        queue_array[rear]=add_item;
    }
}

int delete()
{
    if (front==-1|| front>rear)
    {
        printf("queue overflow\n");
        return;
    }
    else
    {
        printf("delete element: \n");
        scanf("%d",&queue_array[front]);
        front++;
    }


}
```

OUTPUT:

```
4. exit
enter choice:
1
insert element:
2
1. insert
2. delete
3. display
4. exit
enter choice:
2
delete element:
1
1. insert
2. delete
3. display
4. exit
enter choice:
3
queue is:

1. insert
2. delete
3. display
4. exit
enter choice:
1
insert element:
3
1. insert
2. delete
3. display
4. exit
enter choice:
1
insert element:
5
1. insert
2. delete
3. display
4. exit
enter choice:
3
queue is:
35
1. insert
2. delete
3. display
4. exit
enter choice:
```