Lab Program 3: Write a program to stimulate the working of queue of integers using an array. Provide the following operations
i) Insert Rear ii) Delete front, iii) Display the content
The program should print appropriate messages for queue is empty

```
# include <stdio.h>
# include <conio.h>
# include <process.h>
# define QUE_SIZE 3
int item, front=0, rear=-1, q[10];
Void insertrear()
{ if (rear == QUE_SIZE-1)
  { printf ("Queue overflow \n");
  return;
  }
  rear= rear+1;
    q[rear ]= item;
  }
  int deletefront ()
{   if(front>rear)
    { front=0;
      rear = -1;
      return -1;
}
  return q[front++];
}
Void displayQ()
{ int i;
   if(front>rear)
  { printf( "Queue is empty \n");
    return ;
    }
```

```
printf ("Content of Queue \n");
for (i= front ; i<= rear ; i++)
{ printf ("%d\n", q[i]);
 }
}
void main()
{ int choice;
  clearq();
  for(i=front ; i<=rear; i++)
{ printf("\n1: insertrear\n2: deletefront \n3: display\n 4: exit\n");
  printf (" enter the choice\n");
  scanf ("%d", & choice);
  switch (choice)
    { case 1: printf (" enter the item to be inserted \n");
              scanf ("%d", &item);
              insertrear();
              break;
      case 2: item = deletefront();
              if (item == -1)
              printf("Queue is empty \n");
              else
              printf (" item deleted = %d \n", item);
              break;
      case 3: displayQ();
              break;
      default : exit(0);
    }
}
```