Program 3

```
#include <stdio.h>
#include <stdlib.h>          #define MAX 5
int queue[MAX];
void dequeue (int *front, int *rear)
{
    if (*front == *rear)
    printf ("\n Queue is empty.");
    else {
     printf ("Deleted = %d", queue[*front]);
     (*front)++;
     if (*front == *rear)
      *front = *rear = -1;
    }
}
void display (int *front, int *rear)
{
    if (*rear == -1)
     printf ("\n Queue is empty!.");
    else
    {
        int i;
     printf ("\n Queue contents: ");
      for (i = *front; i <= *rear; i++)
        printf ("%d ", queue[i]);
    }
}
int main ()
{
    int value, choice;
    int front = -1, rear = -1;
```

```
while (1) {
    printf("\n 1. Insert to Queue");
    printf("\n 2. delete from queue");
    printf("\n 3. Display the content");
    printf("\n 4. Exit");
    printf("Enter your option");
    scanf("%d", &choice);
    switch (choice) {
        case 1: printf("Enter the element = \n");
                scanf("%d", &value);
                enqueue(value, &front, &rear);
                break;
        case 2: dequeue(&front, &rear)
                break;
        case 3: display(&front, &rear)
                break;
        case 4: return 0;
        default: printf("You have exited the code!");
    }
}
    return 0;
}
void enqueue(int value, int *front, int *rear)
{
    if (*rear = MAX-1)
        printf("Queue is Full!");
    else {
        if (*front == -1)
            *front = 0
            (*rear)++;
        queue[*rear] = value;
    }
}
```