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#include<stdio.h>
#define MAX 5
int queue[MAX];
int front=-1;
int rear=-1;
void insert(int value)
{
    if(rear==MAX-1)
    {
        printf("Queue is full.Cannot insert %d \n",value);
        return;
    }
    if(rear==-1 && front==-1)
    {
        front=0;
    }
    rear++;
    queue[rear]=value;
    printf("Inserted: %d\n",value);
}
int delete()
{
    if(rear==-1 && front==-1)
    {
        printf("Queue is empty.Cannot delete\n");
        return -1;
    }
    int item=queue[front];
    if(front>=rear)
    {
        front=-1;
        rear=-1;
    }
    else
    {
        front++;
    }
}
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    }
    printf("Deleted: %d\n", item);
    return item;
}

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

int main()
{
    int choice, value;
    do
    {
        printf("\n 1.INSERT \n 2.DELETE \n 3.DISPLAY \n 4.EXIT\n");
        printf("Enter your choice: ");
        scanf("%d", &choice);
        switch(choice)
        {
            case 1:
                printf("Enter the value to be inserted: ");
                scanf("%d", &value);
                insert(value);
                break;
            case 2:
                delete();
                break;

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switch(choice)
{
case 1:
    printf("Enter the value to be inserted: ");
    scanf("%d",&value);
    insert(value);
    break;
case 2:
    delete();
    break;
case 3:
    display();
    break;
case 4:
    printf("Exiting\n");
    break;
default:printf("Invalid choice \n");
}
} while(choice!=4);
return 0;
}

```

- 1.INSERT
- 2.DELETE
- 3.DISPLAY
- 4.EXIT

Enter your choice: 1

Enter the value to be inserted: 10

Inserted: 10

- 1.INSERT
- 2.DELETE
- 3.DISPLAY
- 4.EXIT

Enter your choice: 1

Enter the value to be inserted: 20

Inserted: 20

- 1.INSERT
- 2.DELETE
- 3.DISPLAY
- 4.EXIT

Enter your choice: 3

Queue contents:10                      20

- 1.INSERT
- 2.DELETE
- 3.DISPLAY
- 4.EXIT

Enter your choice: 2

Deleted: 10

- 1.INSERT
- 2.DELETE
- 3.DISPLAY
- 4.EXIT

Enter your choice: 2

Deleted: 20

- 1.INSERT
- 2.DELETE
- 3.DISPLAY
- 4.EXIT

Enter your choice: 2

Queue is empty.Cannot delete

- 1.INSERT
- 2.DELETE
- 3.DISPLAY
- 4.EXIT

Enter your choice: 3

Queue is empty

- 1.INSERT
- 2.DELETE
- 3.DISPLAY
- 4.EXIT

Enter your choice: 2

Queue is empty.Cannot delete

- 1.INSERT
- 2.DELETE
- 3.DISPLAY
- 4.EXIT

Enter your choice: 3

Queue is empty

- 1.INSERT
- 2.DELETE
- 3.DISPLAY
- 4.EXIT

Enter your choice: 4

Exiting

Process returned 0 (0x0)      execution time : 14.735 s

Press any key to continue.

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