2b ds

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#include<stdio.h>
#include<stdlib.h>
#define MAX 5

char cq[MAX], item;
int ch, f = 0, r = -1, c = 0;

void cqinsert() {
   if(c == MAX) {
      printf("Queue is full");
   } else {
      printf("Enter the element\n");
      scanf(" %c", &item);
      r = (r + 1) % MAX;
      cq[r] = item;
      c++;
   }
}

void cqdelete() {
   if(c == 0) {
      printf("Queue is empty");
   } else {
      printf("The deleted element is %c", cq[f]);
      f = (f + 1) % MAX;
      c--;
   }
```

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}

void cqdisplay() {
   if(c == 0) {
      printf("Queue is empty");
   } else {
      int i = 1;
      int X = f;
      printf("The status of queue \n");
      for(i = 1; i <= c; i++) {
         printf("%c\t",cq[X]);
         X = (X + 1) % MAX;
      }
   }
}

int main() {
   for(;;) {
      printf("\n1:Insert 2:Delete 3:Display\n");
      printf("Enter your choice\n");
      scanf("%d", &ch);
      switch(ch) {
         case 1:
            cqinsert();
            break;
         case 2:
            cqdelete();
            break;
         case 3:
```

```
            cqdisplay();
            break;
        default:
            printf("Invalid choice \n");
            exit(0);
      }
   }
}
```