

## Queue operation

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18M19CS043

```
#include <stdio.h>
#include <stdlib.h>

void create(int);
void display(int);
void reverse(int);
void concat();

struct node
{
    int data;
    struct node *next;
};

struct node *head1=NULL, *head2=NULL, *third;

int main(int argc, char **argv)
{
    int choice, ele, str;
    do {
        printf("\n1. Create \n2. Display \n3. Reverse \n4. Concatenate. \n5. Exit");
        printf("\n Enter your choice:");
        scanf("%d", &choice);
        switch (choice)
        {
            case 1: printf("Enter the list to be added to:\n");
                    scanf("%d", &str);
                    create(str); break;
            case 2: printf("Enter the string to be displayed\n");
                    scanf("%d", &str);
                    display(str); break;
            case 3: printf("Enter the list to be reversed\n");
                    scanf("%d", &str);
                    reverse(str); break;
            case 4: concat();
                    display(1);
                    break;
        }
    } while (choice != 5);
}
```

Dayanand



```
while (choice != 5);
```

g

```
void create (int str)
```

```
{ struct node *newnode, *temp, *head;
```

```
if (str == 1)
```

```
head = head 1;
```

```
else
```

```
head = head 2;
```

```
int item;
```

```
newnode = (struct node *) malloc (sizeof (struct node));
```

```
printf ("Enter the data:");
```

```
scanf ("%d", &item);
```

```
if (head == NULL)
```

```
{ newnode -> next = NULL;
```

```
head = newnode;
```

```
if (str == 1)
```

```
head 1 = head;
```

```
else
```

```
head 2 = head;
```

```
printf ("Node created \n");
```

g else

```
{ temp = head;
```

```
while (temp -> next != NULL)
```

```
{ temp = temp -> next;
```

g

```
temp -> next = new node;
```

```
new node -> next = NULL;
```

```
printf ("Node created \n"); g g
```

```
void concat()
```

```
{ struct node *temp1 = head1, *temp2 = head2;
```



```
while (temp1->next != NULL)
```

```
temp1 = temp1->next;
```

```
temp1->next = temp2;
```

q

```
void reverse (int str)
```

2

```
struct node *prev = NULL, *current, *next = NULL;
```

```
if (str == 1)
```

```
current = head1;
```

```
else if (str == 2)
```

```
current = head2;
```

```
while (current != NULL)
```

```
{ next = current->next;
```

```
current->next = prev;
```

```
prev = current;
```

```
current = next;
```

q

```
if (str == 1)
```

```
head1 = prev;
```

```
else if (str == 2)
```

```
head2 = prev;
```

```
display (str);
```

q

```
void display (int str)
```

2

```
struct node *ptr = NULL;
```

```
if (str == 1)
```

```
ptr = head1;
```

```
else if (str == 2)
```

```
ptr = head2;
```

```
if (ptr == NULL)
```

2

```
printf("Nothing to print\n");
```

q

```
else
```

```
{ while (ptr != NULL)
```

2

```
printf("%d", ptr->data);
```

```
ptr = ptr->next;
```

q q q

③

Qathol