

week-8
==

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

```
void push();
```

```
void pop();
```

```
void display();
```

```
struct node
```

```
{
```

```
int data;
```

```
struct node *next;
```

```
};
```

```
struct node *top = NULL;
```

```
int main (int argc, char **argv)
```

```
{
```

```
int choice;
```

```
do
```

```
{
```

```
printf("\n 1. push 2. display 3. pop 4. exit\n");
```

```
printf("\n Enter your choice:");
```

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

```
switch(choice)
```

```
{
```

```
case 1: push(); break;
```

```
case 2: display(); break;
```

```
case 3: pop(); break;
```

```
case 4: pop exit(0); break;
```

```
default: exit(0);
```

```
}
```

```
while(choice != 4);
```

```
}
```

```

void push()
{
    int item;
    struct node *newnode;
    printf("Enter the element");
    scanf("%d", &item);

```

```

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

```

```

    newnode->data = item;

```

```

    newnode->next = NULL;

```

```

    if (top == NULL)

```

```

        top = newnode;

```

```

    else

```

```

        newnode->next = top;

```

```

        top = newnode;
    }

```

```

}

void pop()

```

```

{
    if (top == NULL)

```

```

        printf("stack is empty"); else

```

```

        {
            printf("element is %d", top->data);

```

```

            top = top->next;
        }
    }

```

```

void display()

```

```

{
    struct node *temp;

```

```

    temp = top;

```

```

    if (top == NULL)

```

```

    printf("Stack is empty.");
    while (temp != NULL)
    {
        printf("%d, ", temp->data);
        temp = temp->next;
    }
}

```

```

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

struct node

```

```

{
    int data;
    struct node *next;
}

```

```

void insert();
void display();
void del();

```

```

struct node *head = NULL, *p = NULL;
int main (int argc, char *argv)

```

```

{
    int choice;
    do
    {
        printf("\n 1. Create 2. Display 3. Delete 4. Exit\n");
        printf("\n Enter your choice: ");
        scanf("%d", &choice);
        switch (choice)
        {
            case 1: insert(); break;
            case 2: display(); break;
            case 3: del(); break;
            case 4: exit(0);
        }
    }
}

```



```
} while (choice = 4)
```

```
{
```

```
void insert()
```

```
struct node * newnode;
```

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

```
void insert printf("Enter the element: \n"); scanf("%d", &newnode->data);
```

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

```
if (rear == NULL)
```

```
{
```

```
rear = newnode;
```

```
front = newnode;
```

```
{ else {
```

```
rear->next = newnode
```

```
rear->next = newnode
```

```
}
```

```
}
```

```
void delc()
```

```
{ if (front == NULL)
```

```
{
```

```
printf("Queue is empty \n"); return;
```

```
}
```

```
else
```

```
{
```

```
printf("Deleted element is %d", front->data);
```

```
if (front == rear)
```

```
{ printf("Queue is empty \n");
```

```
front = NULL; rear = NULL;
```

```
else
```

```
}
```

```
front -> front -> next;
```

```
}
```

```
}
```

```
void display()
```

```
{
```

```
struct tnode *temp;
```

```
if (front == NULL)
```

```
{  
    printf("Queue is empty");
```

```
    return;
```

```
}
```

```
temp = front
```

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

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

```
}
```

```
}
```