

week 4 program

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

```
#include <conio.h>
```

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

```
#define Max_Size 100
```

```
int main() {
```

```
int item, choice, i;
```

```
int arr_queue[Max_Size];
```

```
int rear = 0;
```

```
int front = 0;
```

```
int exit = 1;
```

```
printf("\n Simple Queue Example - Array");
```

```
do {
```

```
printf("\n\n Queue Main Menu");
```

```
printf("\n1. Insert\n2. Remove\n3. Display\n   \n others to exit");
```

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

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

```
switch(choice) {
```

```
case 1:
```

```
if (rear == Max_Size)
```

```
printf("\n ## Queue Reached Max!! ");
```

```
else {
```

```
printf("\n Enter the value to be Insert:");
```

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

```
printf("\n ## position: %d, Insert value: %d",  
       rear + 1, item);
```

```
arr_queue[rear++] = item;
}
break;
Case 2:
if (front == rear)
    printf("\n## Queue is empty!");
else
{
    printf("\n## position: %d, Remove value: %d", front, arr_queue[front]);
    front++;
}
break;
Case 3;
printf("\n## Queue Size: %d", rear);
for (i = front; i < rear; i++)
    printf("\n## position: %d, Value: %d", i, arr_queue[i]);
break;
default:
    exit = 0;
    break;
}
} while (exit);
return 0;
}
```