```
//Q USING ARRAY
//FIFO   First In First Out

#include<stdio.h>
#include<conio.h>
                                                                                    //
        a[5][10][15][20][25]              f   r
int a[5], front=-1,rear=-1;   //    0   1   2   3  4        0  0,1,2,3,4
                                                                                    //
1
void addElement(int x) //5,10,15,20,25,30  //              2
{                       //                    3
        if(rear==4)                  //
                printf("\n\nQUEUE IS FULL");     //
        else                                                                                    //
        {
                if(front==-1)
                        front=rear=0;
                else
                        rear++;

                a[rear]=x;
        }
}
void removeElement()
{
        if(front == -1)
                printf("\n\nQueue is empty.\n");
        else
        {
                printf("Number deleted %d\n",a[front]);
                front++;
                if(front>rear)   //this will work when we delete last number
                        front=rear=-1;
        }
}

void display()
{
        int i;
        if(front == -1)
                printf("\n\nQUEUE is empty.\n");
        else
        {
                printf("Numbers are \n");
                for(i=front; i<=rear; i++)
                        printf("%d\n",a[i]);
```

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	}
}

int count()
{
	if(front == -1)		//f=0
		return 0;
	else
		return rear-front+1;	//r=2
}

void controller()
{
	int ch,n;
	do
	{
		printf("\n\nQUEUE BY ARRAY\n1.Add Element\n2.Remove
Element\n3.Display\n4.Count\n5.Exit\nEnter your choice: ");
		scanf("%d",&ch);
		switch(ch)
		{
			case 1:
				printf("\nEnter your number ");
				scanf("%d",&n);
				addElement(n);		//10,20
				break;
			case 2:
				removeElement();
				break;
			case 3:
				display();
				break;
			 case 4:
				 printf("Count = %d\n",count());
				 break;
			 case 5:
				 printf("\nExiting");
				 break;
			 default:
				 printf("\n\nInvalid choice. Pleasr try again...\n");
		}
	} while(ch!=5);
}

void main()
{
	clrscr();
```

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        controller();
        getch();
}
```