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DATE – 18 Oct 2021

BRANCH – BTECH CSE

SEC = 13 A

UID -20BCS2761

Q Write a program to calculate the number of items in a queue

Algorithms

- Enqueue adds an element to the end of the Queue.
- The capacity of a Queue is the number of elements the Queue can hold.
- As elements are added to a Queue, the capacity is automatically increased as required by reallocating the internal array.
- Queue accepts null as a valid value for reference types and allows duplicate elements.

Code in Text Form –

```
#include <iostream>
#include <queue>
using namespace std;
int main(){
    queue<int> Queue;
    Queue.push(10);
    Queue.push(20);
    Queue.push(30);
    Queue.push(40);
    cout<<"size of Queue is : "<<Queue.size();
    return 0;}
```

Code In Compiler –

```
Get Started raj.cpp x
G: raj.cpp > ...
1 #include <iostream>
2 #include <queue>
3 using namespace std;
4 int main(){
5     queue<int> Queue;
6     Queue.push(10);
7     Queue.push(20);
8     Queue.push(30);
9     Queue.push(40); (const char [20])"size of Queue is : "
10     cout<<"size of Queue is : "<<Queue.size();
11     return 0;
12 }
13
```

OUTPUT

```
PROBLEMS OUTPUT TERMINAL 1: Code
cd "/Users/rajdeepjaiswal/Desktop/Codes/practices/" && g++ raj.cpp -o raj && "/Users/rajdeepjaiswal/Desktop/Codes/practices/"raj
rajdeepjaiswal@Rajdeeps-Air practices % cd "/Users/rajdeepjaiswal/Desktop/Codes/practices/" && g++ raj.cpp -o raj && "/Users/rajdeepjaiswal/Desktop/Codes/practices/"raj
size of Queue is : 4
rajdeepjaiswal@Rajdeeps-Air practices %
```