Name: Tushar Panchal

En.No: 21162101014

Sub: FET(Front End Technologies)

Branch: CBA

Batch:41

------------------------------**PRACTICAL 15**------------------------------

❖ **Objective**:
To understand the concept of observables in Angular.

❖ **Exercise:**
Consider a stream of numbers to be generated using an observable, subscribe to the stream and log only the even numbers from the stream on console.
You should include next, complete and error methods of the observables.

➢ **GITHUB LINK :** https://github.com/Tushar007079/FET-PRACTICALS/tree/main/15

✓ **app.component.html :**

```
<app-even-numbers></app-even-numbers>
```

➢ **Using ng generate component : I created *even-numbers-component***

✓ **even-numbers-component.component.html :**

```html
<html>
    <head>

    </head>
    <body>


        <div class="content">
            <div class="waviy">
                <span style="--i:1">
```

```html
          <h2>E</h2>
        </span>
        <span style="--i:2">
          <h2>V</h2>
        </span>
        <span style="--i:3">
          <h2>E</h2>
        </span>
        <span style="--i:4">
          <h2>N</h2>
        </span>
        <span style="--i:5">
          <h2>-</h2>
        </span>
        <span style="--i:6">
          <h2>N</h2>
        </span>
        <span style="--i:7">
          <h2>U</h2>
        </span>
        <span style="--i:8">
            <h2>M</h2>
          </span>
        <span style="--i:9">
          <h2>B</h2>
        </span>
        <span style="--i:10">
            <h2>E</h2>
          </span>
          <span style="--i:11">
            <h2>R</h2>
          </span>
          <span style="--i:12">
            <h2>S</h2>
          </span>
      </div>

    </div>

  </body>
</html>

<div class="main-div main-div1">
   <li *ngFor="let num of evenNumbers">{{ num }}</li>
  </div>
```

✓ **<u>even-numbers-component.component.ts :</u>**

```typescript
import { Component } from '@angular/core';
import { Observable } from 'rxjs';
```

```typescript
@Component({
  selector: 'app-even-numbers',
  templateUrl:'./even-numbers-component.component.html',
  styleUrls: ['./even-numbers-component.component.css']
})
export class EvenNumbersComponent {
  evenNumbers: number[] = [];

  constructor() {
    const numbers$: Observable<number> = new Observable((observer) => {
      let count = 0;
      setInterval(() => {
        count++;
        observer.next(count);
      }, 1000);
    });

    const subscription = numbers$.subscribe({
      next: (num) => {
        if (num % 2 === 0) {
          this.evenNumbers.push(num);
        }
      },
      complete: () => {
        console.log('Stream completed');
      },
      error: (err) => {
        console.error('An error occurred:', err);
      },
    });
  }
}
```

✓ **Output :**

EVEN-NUMBERS
2
4
6
8
10
12
14
16

28
30
32
34
36
38
40
42
44
46
48