NAMA　　　　: **Sonnya Ghandi**

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TUGAS 1

1. **Membuat kalimat**
   Source code :
   ```
   var word = 'JavaScript';
   var second = 'is';
   var third = 'awesome';
   var fourth = 'and';
   var fifth = 'I';
   var sixth = 'love';
   var seventh = 'it!';

   var sentence = `${word} ${second} ${third} ${fourth} ${fifth} ${sixth} ${seventh}`
   console.log(sentence);
   ```

   Output :

   ```
   [Running] node "c:\Users\Ghandi\Desktop\MobilePrograming\tugas-1\no1.js"
   JavaScript is awesome and I love it!
   ```

2. **Mengurai kalimat (Akses karakter dalam string)**
   Source code :
   ```
   var sentence = "I am going to be React Native Developer";
   var exampleFirstWord = sentence[0];
   var exampleSecondWord = sentence[2] + sentence[3];
   var thirdWord = sentence[5] + sentence[6] + sentence[7] + sentence[8] + sentence[9];
   var fourthWord = sentence[11] + sentence[12];
   var fifthWord = sentence[14] + sentence[15];
   var sixthWord = sentence[17] + sentence[18] + sentence[19] + sentence[20] + sentence[21];
   var seventhWord = sentence[23] + sentence[24] + sentence[25] + sentence[26] + sentence[27] + sentence[28];
   var eighthWord = sentence[30] + sentence[31] + sentence[32] + sentence[33] + sentence[34] + sentence[35] + sentence[36] + sentence[37] + sentence[38];
   console.log('First Word: ' + exampleFirstWord);
   console.log('Second Word: ' + exampleSecondWord);
   console.log('Third Word: ' + thirdWord);
   console.log('Fourth Word: ' + fourthWord);
   ```

```
console.log('Fifth Word: ' + fifthWord);
console.log('Sixth Word: ' + sixthWord);
console.log('Seventh Word: ' + seventhWord);
console.log('Eighth Word: ' + eighthWord);
```

Output:

```
[Running] node "c:\Users\Ghandi\Desktop\MobilePrograming\tugas-1\tempCodeRunnerFile.js"
First Word: I
Second Word: am
Third Word: going
Fourth Word: to
Fifth Word: be
Sixth Word: React
Seventh Word: Native
Eighth Word: Developer
```

3. **Mengurai Kalimat (Substring)**
   Source code:

```
var sentence2 = 'wow JavaScript is so cool';

var exampleFirstWord2 = sentence2.substring(0, 3);
var secondWord2 = sentence2.substring(4, 14);
var thirdWord2 = sentence2.substring(15, 17);
var fourthWord2 = sentence2.substring(18, 20);
var fifthWord2 = sentence2.substring(21, 25);
console.log('First Word: ' + exampleFirstWord2);
console.log('Second Word: ' + secondWord2);
console.log('Third Word: ' + thirdWord2);
console.log('Fourth Word: ' + fourthWord2);
console.log('Fifth Word: ' + fifthWord2);
```

   Output:

```
[Running] node "c:\Users\Ghandi\Desktop\MobilePrograming\tugas-1\no3.js"
First Word: wow
Second Word: JavaScript
Third Word: is
Fourth Word: so
Fifth Word: cool
```
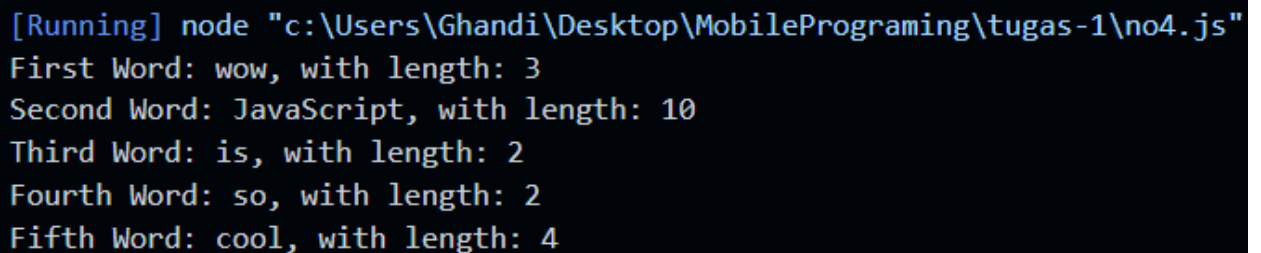
4. **Mengurai Kalimat dan Menentukan Panjang String**
   Source code:
   ```javascript
   var sentence3 = "wow JavaScript is so cool";
   var exampleFirstWord3 = sentence3.substring(0, 3);
   var secondWord3 = sentence3.substring(4, 14);
   var thirdWord3 = sentence3.substring(15, 17);
   var fourthWord3 = sentence3.substring(18, 20);
   var fifthWord3 = sentence3.substring(21, 25);

   var firstWordLength = exampleFirstWord3.length;
   var secondWordLength = secondWord3.length;
   var thirdWordLength = thirdWord3.length;
   var fourthWordLength = fourthWord3.length;
   var fifthWordLength = fifthWord3.length;
   console.log("First Word: " + exampleFirstWord3 + ", with length: " + firstWordLength );
   console.log("Second Word: " + secondWord3 + ", with length: " + secondWordLength);
   console.log("Third Word: " + thirdWord3 + ", with length: " + thirdWordLength);
   console.log("Fourth Word: " + fourthWord3 + ", with length: " + fourthWordLength);
   console.log("Fifth Word: " + fifthWord3 + ", with length: " + fifthWordLength);
   ```

   Output:
   ```
   [Running] node "c:\Users\Ghandi\Desktop\MobilePrograming\tugas-1\no4.js"
   First Word: wow, with length: 3
   Second Word: JavaScript, with length: 10
   Third Word: is, with length: 2
   Fourth Word: so, with length: 2
   Fifth Word: cool, with length: 4
   ```

5. **If-else**
   Source code :
   ```javascript
   var nama = 'Zack'
   var peran = 'penyihir'

   if (nama == '') {
     console.log("Nama harus diisi!!");
   } else if (peran == '') {
     console.log(`Halo ${nama}, Pilih peranmu untuk memulai game!`);
   } else if (peran.toLocaleLowerCase == 'penyihir') {
     console.log(`Selamat datang di dunia werewolf, ${nama}`);
     console.log(`Halo ${peran} ${nama}, kamu dapat melihat siapa yang jadi werewolf`);
   ```

```
} else if (peran.toLocaleLowerCase == 'guard') {
    console.log(`Selamat datang di dunia werewolf, ${nama}`);
    console.log(`Halo ${peran} ${nama}, kamu akan membantu melindungi temanmu dari
serangan werewolf`);
} else if (peran.toLocaleLowerCase == 'werewolf') {
    console.log(`Selamat datang di dunia werewolf, ${nama}`);
    console.log(`Halo ${peran} ${nama}, kamu akan memangsa setiap malam`);
}
```

Output:

```
[Running] node "c:\Users\Ghandi\Desktop\MobilePrograming\tugas-1\no5.js"
Selamat datang di dunia werewolf, Zack
Halo penyihir Zack, kamu dapat melihat siapa yang jadi werewolf
```

6. **Switch Case**
   Source code :

```
var tanggal = 17;
var bulan = 8 ;
var tahun = 1945;

switch (bulan) {
    case 1:
        console.log(`${tanggal} Januari ${tahun}`);
        break;

    case 2:
        console.log(`${tanggal} Februari ${tahun}`);
        break;
    case 3:
        console.log(`${tanggal} Maret ${tahun}`);
        break;
    case 4:
        console.log(`${tanggal} April ${tahun}`);
        break;
    case 5:
        console.log(`${tanggal} Mei ${tahun}`);
        break;
    case 6:
        console.log(`${tanggal} Juni ${tahun}`);
        break;
```

```
      case 7:
        console.log(`${tanggal} Juli ${tahun}`);
        break;
      case 8:
        console.log(`${tanggal} Agustus ${tahun}`);
        break;
      case 9:
        console.log(`${tanggal} September ${tahun}`);
        break;
      case 10:
        console.log(`${tanggal} Oktober ${tahun}`);
        break;
      case 11:
        console.log(`${tanggal} November ${tahun}`);
        break;
      case 12:
        console.log(`${tanggal} Desember ${tahun}`);
        break;
      default:
        console.log("Bulan yang anda inputkan salah");
        break;
    }
```

Output :

```
[Running] node "c:\Users\Ghandi\Desktop\MobilePrograming\tugas-1\no6.js"
17 Agustus 1945
```

7. **Looping While**
   Source code :
```
var i = 2
console.log('LOOPING PERTAMA');
while (i <= 20) {
  console.log(`${i} - I love coding`);
  i += 2
}
console.log('LOOPING KEDUA');
while (i > 2) {
  i -= 2
  console.log(`${i} - I love coding`);
}
```

Output :

```
[Running] node "c:\Users\Ghandi\Desktop\MobilePrograming\tugas-1\tempCodeRunnerFile.js"
LOOPING PERTAMA
2 - I love coding
4 - I love coding
6 - I love coding
8 - I love coding
10 - I love coding
12 - I love coding
14 - I love coding
16 - I love coding
18 - I love coding
20 - I love coding
LOOPING KEDUA
20 - I love coding
18 - I love coding
16 - I love coding
14 - I love coding
12 - I love coding
10 - I love coding
8 - I love coding
6 - I love coding
4 - I love coding
2 - I love coding
```

8. **Looping menggunakan for**
   Source code :

```javascript
for (let index = 1; index <= 20; index++) {
    if ((index % 3 == 0) && (index % 2 != 0)) {
        console.log(`${index} - I love coding`);
    } else if (index % 2 != 0) {
        console.log(`${index} - Teknik`);
    } else if (index % 2 == 0) {
        console.log(`${index} - Informatika`);
    }
}
```

Output :

```
[Running] node "c:\Users\Ghandi\Desktop\MobilePrograming\tugas-1\tempCodeRunnerFile.js"
1 - Teknik
2 - Informatika
3 - I love coding
4 - Informatika
5 - Teknik
6 - Informatika
7 - Teknik
8 - Informatika
9 - I love coding
10 - Informatika
11 - Teknik
12 - Informatika
13 - Teknik
14 - Informatika
15 - I love coding
16 - Informatika
17 - Teknik
18 - Informatika
19 - Teknik
20 - Informatika
```

9. **Membuat Persegi Panjang #**
   Source code :

```
var dimensi = 4
var persegi = "########"
while (dimensi > 0) {
   console.log(persegi);
   dimensi--
}
```
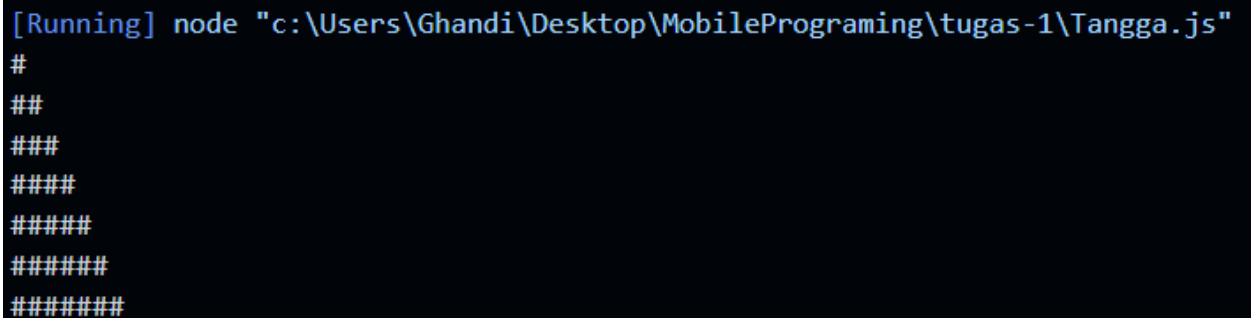
Output:

```
[Running] node "c:\Users\Ghandi\Desktop\MobilePrograming\tugas-1\tempCodeRunnerFile.js"
########
########
########
########
```

10. **Membuat Tangga**
    Source code :

```
for (let line = "#"; line.length < 8; line += "#")
  console.log(line);
```

Output :

```
[Running] node "c:\Users\Ghandi\Desktop\MobilePrograming\tugas-1\Tangga.js"
#
##
###
####
#####
######
#######
```

11. **Papan catur**
    Source code :

```
var c = ""
var panjang = 8
var lebar = 8
for (let i = 1; i <= lebar; i++) {
    if (i % 2 == 0) {
        for (let j = 1; j <= panjang; j++) {
            if (j % 2 == 0) {
                c += "#"
            } else {
                c += " "
            }
        }
    } else {
        for (let j = 1; j <= panjang; j++) {
            if (j % 2 == 0) {
                c += " "
            } else {
                c += "#"
            }
        }
    }
}
```

```
    c += '\n'
}
console.log(c);
```

Output :

```
[Running] node "c:\Users\Ghandi\Desktop\MobilePrograming\tugas-1\tempCodeRunnerFile.js"
# # # #
 # # # #
# # # #
 # # # #
# # # #
 # # # #
# # # #
 # # # #
```