

Lembar Jawaban EDP

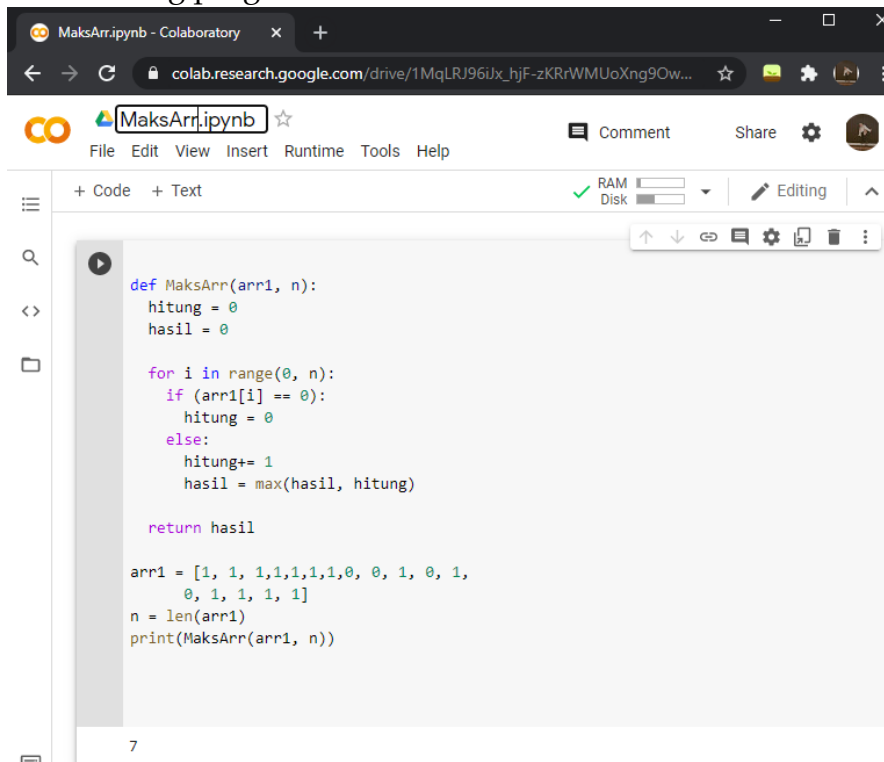
Nama : Anjany Risqiati

1. Menampilkan nilai maksimal/ terbanyak dari array binary (1, 0) yang berurutan. Bahasa pemrograman yang digunakan adalah Python.

a. Source Code

```
def MaksArr(arr1, n):  
    hitung = 0  
    hasil = 0  
  
    for i in range(0, n):  
        if (arr1[i] == 0):  
            hitung = 0  
        else:  
            hitung+= 1  
            hasil = max(hasil, hitung)  
  
    return hasil  
  
arr1 = [1, 1, 1,1,1,1,1,0, 0, 1, 0, 1,  
        0, 1, 1, 1, 1]  
n = len(arr1)  
print(MaksArr(arr1, n))
```

b. Running program dan hasil



The screenshot shows a Google Colaboratory notebook interface. The browser address bar displays the URL: `colab.research.google.com/drive/1MqLRJ96iJx_hjF-zKRrWMUoXng9Ow...`. The notebook title is "MaksArr.ipynb". The code editor contains the following Python code:

```
def MaksArr(arr1, n):  
    hitung = 0  
    hasil = 0  
  
    for i in range(0, n):  
        if (arr1[i] == 0):  
            hitung = 0  
        else:  
            hitung+= 1  
            hasil = max(hasil, hitung)  
  
    return hasil  
  
arr1 = [1, 1, 1,1,1,1,1,0, 0, 1, 0, 1,  
        0, 1, 1, 1, 1]  
n = len(arr1)  
print(MaksArr(arr1, n))
```

The code is executed, and the output is displayed at the bottom of the notebook, showing the number 7.

2. Menampilkan string yang terbalik dengan fungsi rekursif. Bahasa pemrograman yang digunakan adalah Python.

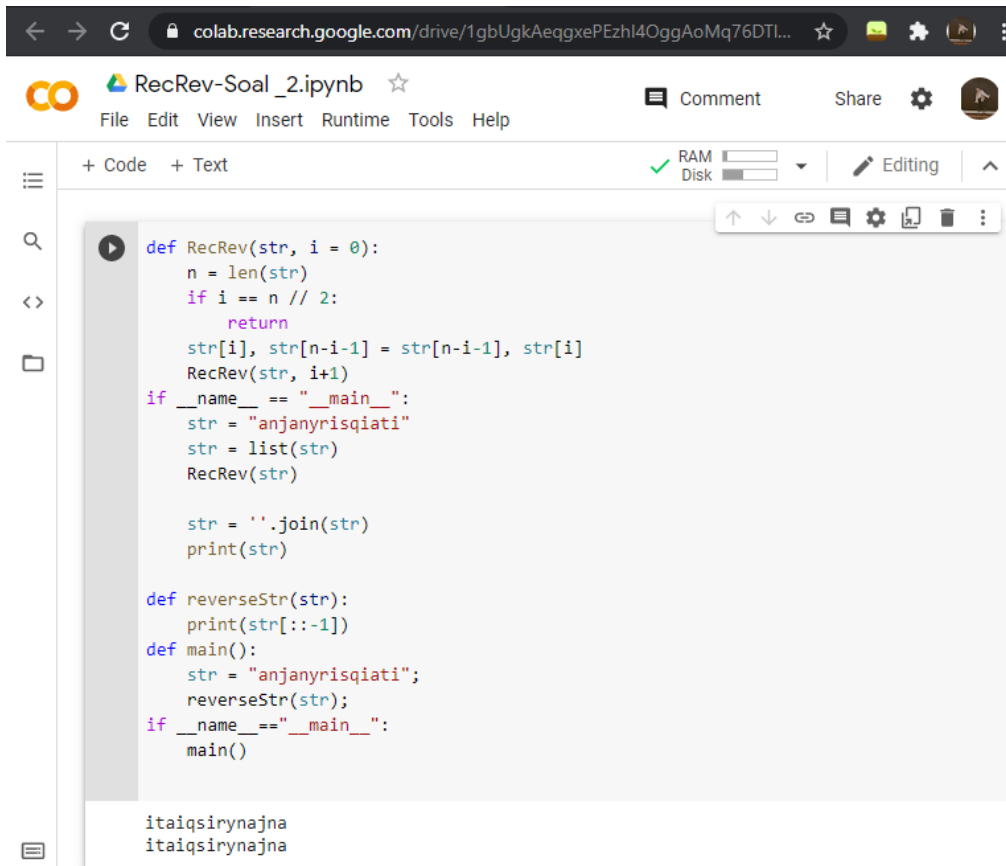
a. Source Code

```
def RecRev(str, i = 0):
    n = len(str)
    if i == n // 2:
        return
    str[i], str[n-i-1] = str[n-i-1], str[i]
    RecRev(str, i+1)
if __name__ == "__main__":
    str = "anjanyrisqiati"
    str = list(str)
    RecRev(str)

    str = ''.join(str)
    print(str)

def reverseStr(str):
    print(str[::-1])
def main():
    str = "anjanyrisqiati";
    reverseStr(str);
if __name__ == "__main__":
    main()
```

b. Running program dan hasil



The screenshot shows a Google Colab notebook interface. The browser address bar displays the URL: `colab.research.google.com/drive/1gbUgkAeqgxePEzhI4OggAoMq76DTI...`. The notebook title is "RecRev-Soal_2.ipynb". The code cell contains the following Python code:

```
def RecRev(str, i = 0):
    n = len(str)
    if i == n // 2:
        return
    str[i], str[n-i-1] = str[n-i-1], str[i]
    RecRev(str, i+1)
if __name__ == "__main__":
    str = "anjanyrisqiati"
    str = list(str)
    RecRev(str)

    str = ''.join(str)
    print(str)

def reverseStr(str):
    print(str[::-1])
def main():
    str = "anjanyrisqiati";
    reverseStr(str);
if __name__ == "__main__":
    main()
```

The output of the program is displayed at the bottom of the notebook:

```
itaiqsirynajna
itaiqsirynajna
```

3. Membuat fungsi untuk melakukan pengecekan apakah ekspresi / bracket sesuai/ balance atau tidak. Bahasa pemrograman yang digunakan adalah Java.

a. Source Code

```
import java.util.*;
```

```
public class bracket1 {
```

```
    static boolean CekBracket(String expr)
```

```
    {
```

```
        Deque<Character> stack
```

```
            = new ArrayDeque<Character>();
```

```
        for (int i = 0; i < expr.length(); i++)
```

```
        {
```

```
            char x = expr.charAt(i);
```

```
            if (x == '(' || x == '[' || x == '{')
```

```
            {
```

```
                stack.push(x);
```

```
                continue;
```

```
            }
```

```
            if (stack.isEmpty())
```

```
                return false;
```

```
            char check;
```

```
            switch (x) {
```

```
            case ')':
```

```
                check = stack.pop();
```

```
                if (check == '{' || check == '[')
```

```
                    return false;
```

```
                break;
```

```
            case '}':
```

```
                check = stack.pop();
```

```

        if (check == '(' || check == '[')
            return false;
        break;

    case ']':
        check = stack.pop();
        if (check == '(' || check == '{')
            return false;
        break;
    }
}

return (stack.isEmpty());
}

public static void main(String[] args)
{
    String expr = "([{}])";

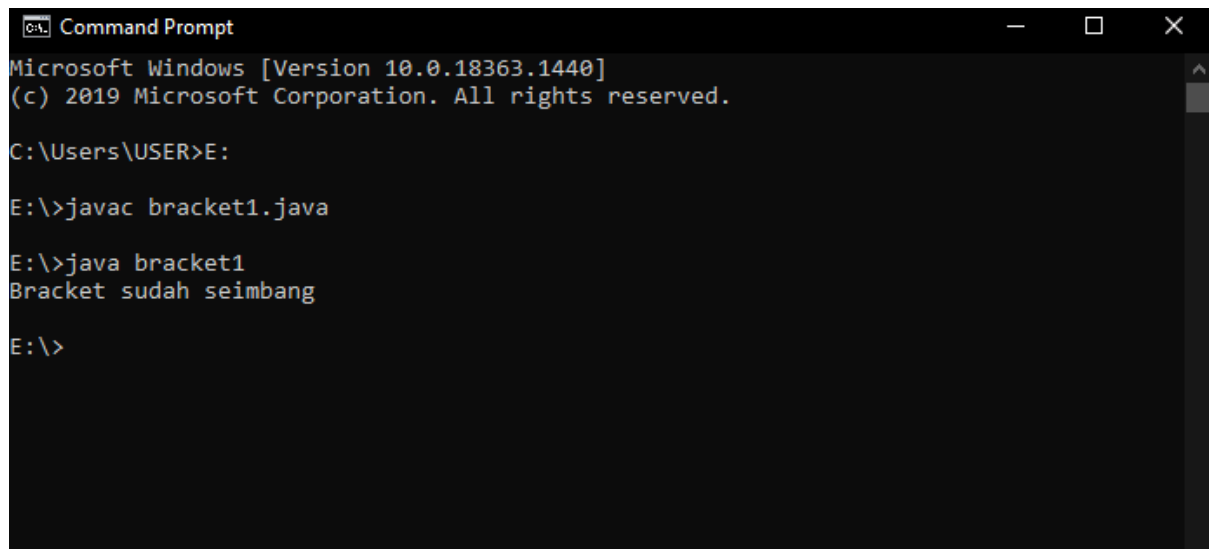
    // Function call
    if (CekBracket(expr))
        System.out.println("Bracket sudah seimbang ");
    else
        System.out.println("Bracket tidak seimbang ");
}
}

```

b. Running program dan hasil

```
bracket1.java
1  import java.util.*;
2
3  public class bracket1 {
4
5      static boolean CekBracket(String expr)
6      {
7
8          Deque<Character> stack
9          = new ArrayDeque<Character>();
10
11          for (int i = 0; i < expr.length(); i++)
12          {
13
14              char x = expr.charAt(i);
15
16              if (x == '(' || x == '[' || x == '{')
17              {
18                  stack.push(x);
19                  continue;
20              }
21
22              if (stack.isEmpty())
23                  return false;
24              char check;
25              switch (x) {
26                  case ')':
27                      check = stack.pop();
28                      if (check == '{' || check == '[')
29                          return false;
30                      break;
31                  case '}':
32                      check = stack.pop();
33                      if (check == '(' || check == '[')
34                          return false;
35                      break;
36                  case ']':
37                      check = stack.pop();
38                      if (check == '(' || check == '{')
39                          return false;
40                      break;
41              }
42          }
43
44          return (stack.isEmpty());
45      }
46
47
48      public static void main(String[] args)
49      {
50
51          String expr = "([{}])";
52
53          // Function call
54          if (CekBracket(expr))
55              System.out.println("Bracket sudah seimbang ");
56          else
57              System.out.println("Bracket tidak seimbang ");
58      }
59
60
61
62
63
64
```

c. Hasil



```
Command Prompt
Microsoft Windows [Version 10.0.18363.1440]
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C:\Users\USER>E:

E:\>javac bracket1.java

E:\>java bracket1
Bracket sudah seimbang

E:\>
```