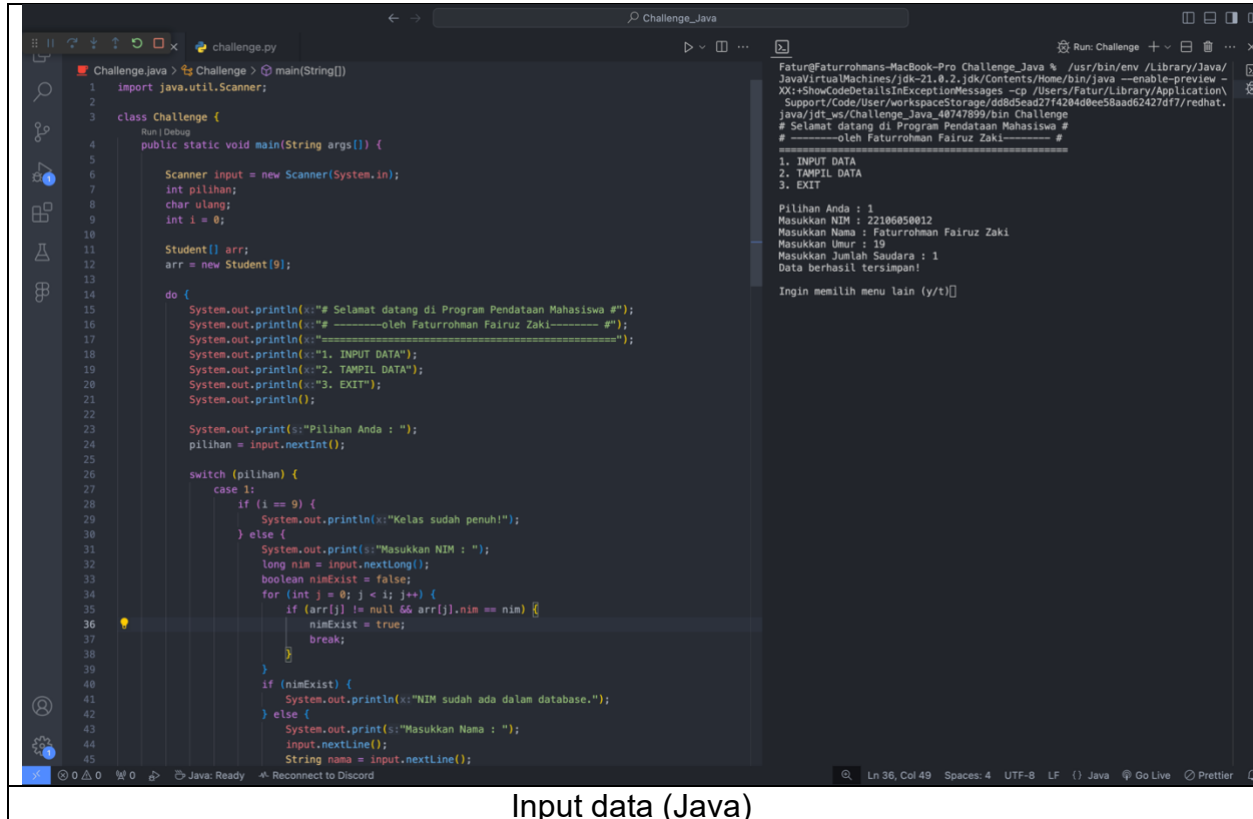


# Output Program Pendataan Mahasiswa Perancangan Struktur Data

Nama : Faturrohman Fairuz Zaki  
NIM : 22106050012  
Kelas : Informatika C



The screenshot displays an IDE with two panels. The left panel shows the source code for a Java program named 'Challenge.java'. The code defines a 'Challenge' class with a 'main' method that uses a 'Scanner' to take user input. It includes a 'do' loop for menu navigation and a 'switch' statement for handling different choices. The right panel shows the output of the program, which displays a menu with three options: '1. INPUT DATA', '2. TAMPIL DATA', and '3. EXIT'. The user has chosen option 1, and the program prompts for NIM, Name, and Age. The user has entered '22106050012' for NIM, 'Faturrohman Fairuz Zaki' for Name, and '19' for Age. The program then displays 'Masukkan Jumlah Saudara : 1' and 'Data berhasil tersimpan!'.

```
Challenge.java > Challenge > main(String[])  
1 import java.util.Scanner;  
2  
3 class Challenge {  
4     public static void main(String args[]) {  
5  
6         Scanner input = new Scanner(System.in);  
7         int pilihan;  
8         char ulang;  
9         int i = 0;  
10  
11         Student[] arr;  
12         arr = new Student[9];  
13  
14         do {  
15             System.out.println(x:"# Selamat datang di Program Pendataan Mahasiswa #");  
16             System.out.println(x:"# -----oleh Faturrohman Fairuz Zaki----- #");  
17             System.out.println(x:"=====");  
18             System.out.println(x:"1. INPUT DATA");  
19             System.out.println(x:"2. TAMPIL DATA");  
20             System.out.println(x:"3. EXIT");  
21             System.out.println();  
22  
23             System.out.print(x:"Pilihan Anda : ");  
24             pilihan = input.nextInt();  
25  
26             switch (pilihan) {  
27                 case 1:  
28                     if (i == 9) {  
29                         System.out.println(x:"Kelas sudah penuh!");  
30                     } else {  
31                         System.out.print(x:"Masukkan NIM : ");  
32                         long nim = input.nextLong();  
33                         boolean nimExist = false;  
34                         for (int j = 0; j < i; j++) {  
35                             if (arr[j] != null && arr[j].nim == nim) {  
36                                 nimExist = true;  
37                                 break;  
38                             }  
39                         }  
40                         if (nimExist) {  
41                             System.out.println(x:"NIM sudah ada dalam database.");  
42                         } else {  
43                             System.out.print(x:"Masukkan Nama : ");  
44                             input.nextLine();  
45                             String nama = input.nextLine();  
46  
47                             Student s = new Student(nim, nama);  
48                             arr[i] = s;  
49                             i++;  
50                             System.out.println(x:"Data berhasil tersimpan!");  
51                             System.out.print(x:"Ingin memilih menu lain (y/t)");  
52                             ulang = input.next().charAt(0);  
53                             if (ulang == 't') {  
54                                 break;  
55                             }  
56                         }  
57                     }  
58                 }  
59             }  
60         }  
61     }  
62 }
```

```
Fatur@Faturrohman-MacBook-Pro: Challenge_Java % /usr/bin/env /Library/Java/JavaVirtualMachines/jdk-21.0.2.jdk/Contents/Home/bin/java --enable-preview -XX:+ShowCodeDetailsInExceptionMessages -cp /Users/Fatur/Library/Application Support/Code/User/workspaceStorage/dd8d5ead27f4204d0ee58aad62427df7/redhat.java/jdt_ws/Challenge_Java_48747899/bin Challenge  
# Selamat datang di Program Pendataan Mahasiswa #  
# -----oleh Faturrohman Fairuz Zaki----- #  
=====  
1. INPUT DATA  
2. TAMPIL DATA  
3. EXIT  
  
Pilihan Anda : 1  
Masukkan NIM : 22106050012  
Masukkan Nama : Faturrohman Fairuz Zaki  
Masukkan Umur : 19  
Masukkan Jumlah Saudara : 1  
Data berhasil tersimpan!  
  
Ingin memilih menu lain (y/t)
```

Input data (Java)

```
Challenge.java > Challenge > main(String[])
1 import java.util.Scanner;
2
3 class Challenge {
4     public static void main(String args[]) {
5
6         Scanner input = new Scanner(System.in);
7         int pilihan;
8         char ulang;
9         int i = 0;
10
11         Student[] arr;
12         arr = new Student[9];
13
14         do {
15             System.out.println("# Selamat datang di Program Pendaftaran Mahasiswa #");
16             System.out.println("# -----oleh Faturrohman Fairuz Zaki----- #");
17             System.out.println("=====");
18             System.out.println("1. INPUT DATA");
19             System.out.println("2. TAMPIL DATA");
20             System.out.println("3. EXIT");
21             System.out.println();
22
23             System.out.print("Pilihan Anda : ");
24             pilihan = input.nextInt();
25
26             switch (pilihan) {
27                 case 1:
28                     if (i == 9) {
29                         System.out.println("Kelas sudah penuh!");
30                     } else {
31                         System.out.print("Masukkan NIM : ");
32                         long nim = input.nextLong();
33                         boolean nimExist = false;
34                         for (int j = 0; j < i; j++) {
35                             if (arr[j] != null && arr[j].nim == nim) {
36                                 nimExist = true;
37                                 break;
38                             }
39                         }
40                         if (nimExist) {
41                             System.out.println("NIM sudah ada dalam database.");
42                         } else {
43                             System.out.print("Masukkan Nama : ");
44                             input.nextLine();
45                             String nama = input.nextLine();
46
47                             # Selamat datang di Program Pendaftaran Mahasiswa #
48                             # -----oleh Faturrohman Fairuz Zaki----- #
49                             =====
50                             1. INPUT DATA
51                             2. TAMPIL DATA
52                             3. EXIT
53                             Pilihan Anda : 2
54                             Data Mahasiswa:
55
56                             NIM :22106050012
57                             Nama :Faturrohman Fairuz Zaki
58                             Umur :19
59                             Jumlah Saudara :1
60
61                             NIM :22106050013
62                             Nama :Hasan Al Haidar
63                             Umur :20
64                             Jumlah Saudara :1
65
66                             NIM :22106050500
67                             Nama :Adi Budi Cahyono
68                             Umur :168
69                             Jumlah Saudara :1
70
71                             Ingin memilih menu lain (y/t)
```

Tampilkan data (Java)

```
Challenge.java > challenge.py
challenge.py > main
self.nim = nim
self.name = nama
self.umur = umur
self.jmlSaudara = jmlSaudara
12
13 def main():
14     print("# Selamat datang di Program Pendaftaran Mahasiswa #")
15     print("# -----oleh Faturrohman Fairuz Zaki #-----")
16     print("=====")
17     print("1. INPUT DATA")
18     print("2. TAMPIL DATA")
19     print("3. EXIT")
20     choice = input("Pilihan Anda : ")
21     return choice
22
23 while True:
24     choice = main()
25     if choice == "1":
26         if index > 9:
27             print("Kelas sudah penuh!")
28         else:
29             inputNim = input("Masukkan NIM : ")
30             nim_exists = False
31             for i in student:
32                 if inputNim == i.nim:
33                     nim_exists = True
34                     break
35             if nim_exists:
36                 os.system('cls' if os.name == 'nt' else 'clear')
37                 print("NIM sudah ada!")
38             else:
39                 inputNama = input("Masukkan Nama : ")
40                 inputUmur = input("Masukkan Umur : ")
41                 inputJmlSaudara = input("Masukkan Jumlah Saudara : ")
42                 s = Student(inputNim, inputNama, inputUmur, inputJmlSaudara)
43                 student.append(s)
44                 index += 1
45                 os.system('cls' if os.name == 'nt' else 'clear')
46                 print("Data berhasil tersimpan!")
47             elif choice == "2":
48                 os.system('cls' if os.name == 'nt' else 'clear')
49                 print("Data Mahasiswa :")
50                 for i in student:
51                     print("NIM\t\t:", i.nim)
52                     print("Nama\t\t:", i.name)
53                     print("Umur\t\t:", i.umur)
54
55                 Data berhasil tersimpan!
56                 # Selamat datang di Program Pendaftaran Mahasiswa #
57                 # -----oleh Faturrohman Fairuz Zaki #-----
58                 =====
59                 1. INPUT DATA
60                 2. TAMPIL DATA
61                 3. EXIT
62                 Pilihan Anda : 1
63                 Masukkan NIM : 22106050013
64                 Masukkan Nama : Hasan Al Haidar
65                 Masukkan Umur : 20
66                 Masukkan Jumlah Saudara: 1
```

Input data (Python)

The image shows a code editor with a Python script named `challenge.py` and its output in the right-hand pane.

**Python Script (`challenge.py`):**

```
1 class Student:
2     def __init__(self, nim, nama, umur, jmlSaudara):
3         self.nim = nim
4         self.name = nama
5         self.umur = umur
6         self.jmlSaudara = jmlSaudara
7
8 def main():
9     print("# Selamat datang di Program Pendataan Mahasiswa #")
10    print("===== oleh: Faturrohman Fairuz Zaki # =====")
11    print("=====")
12    print("1. INPUT DATA")
13    print("2. TAMPIL DATA")
14    print("3. EXIT")
15    choice = input("Pilihan Anda : ")
16    return choice
17
18 while True:
19     choice = main()
20     if choice == "1":
21         if index > 9:
22             print("Kelas sudah penuh!")
23         else:
24             inputNim = input("Masukkan NIM : ")
25             nim_exists = False
26             for i in student:
27                 if inputNim == i.nim:
28                     nim_exists = True
29                     break
30             if nim_exists:
31                 os.system('cls' if os.name == 'nt' else 'clear')
32                 print("NIM sudah ada!")
33             else:
34                 inputNama = input("Masukkan Nama : ")
35                 inputUmur = input("Masukkan Umur : ")
36                 inputJmlSaudara = input("Masukkan Jumlah Saudara: ")
37                 s = Student(inputNim, inputNama, inputUmur, inputJmlSaudara)
38                 student.append(s)
39                 index += 1
40                 os.system('cls' if os.name == 'nt' else 'clear')
41                 print("Data berhasil tersimpan!")
42     elif choice == "2":
43         os.system('cls' if os.name == 'nt' else 'clear')
44         print("Data Mahasiswa :")
45         for i in student:
46             print("NIM\t\t\t: ", i.nim)
47             print("Nama\t\t\t: ", i.name)
48             print("Umur\t\t\t: ", i.umur)
```

**Output:**

```
Data Mahasiswa :
NIM      : 22106850012
Nama     : Faturrohman Fairuz Zaki
Umur     : 19
Jumlah Saudara : 1
=====
NIM      : 22106850013
Nama     : Hasan Al Haidar
Umur     : 20
Jumlah Saudara : 1
=====
# Selamat datang di Program Pendataan Mahasiswa #
===== oleh: Faturrohman Fairuz Zaki # =====
1. INPUT DATA
2. TAMPIL DATA
3. EXIT
Pilihan Anda : 1
```

Tampilkan data (Python)