

PRAKTIKUM
PEMROGRAMAN BERORIENTASI OBJEK
MODUL 11 NESTED CLASS



Disusun Oleh :
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PROGRAM STUDI TEKNIK INFORMATIKA
FAKULTAS KOMUNIKASI DAN INFORMATIKA
UNIVERSITAS MUHAMMADIYAH SURAKARTA
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1. INNER CLASS (Non-Static Nested Class)

Program 1. Contoh inner class

```
Outer_Demo.java X
src > Outer_Demo.java > Outer_Demo
1 public class Outer_Demo {
2     class Nested_Demo{
3
4     }
5 }
```

Program 2. Pengaksesan properties pada inner class

```
OuterDemo.java X
src > OuterDemo.java > OuterDemo
1 public class OuterDemo {
2     int num;
3
4     //inner class
5     private class InnerDemo {
6         private void print() {
7             System.out.println(x: "ini merupakan method inner class");
8         }
9     }
10
11     //akses method inner class dari method outer class
12     void displayInner() {
13         InnerDemo inner = new InnerDemo();
14         inner.print();
15     }
16 }
```

Program 3. Menjalankan (run) inner class melalui method main ()

```
Myclass.java X
src > Myclass.java > Myclass
1 public class Myclass {
    Run | Debug
2     public static void main(String[] args) {
3         //membuat object outer class
4         OuterDemo outer = new OuterDemo();
5
6         //mengakses method outer class
7         outer.displayInner();
8     }
9 }
```

Output Terminal

```
PROBLEMS OUTPUT TERMINAL CODEWHISPERER REFERENCE LOG DEBUG CONSOLE
PS C:\Users\Asus\.vscode\Praktikum_PBO_11> & 'C:\Program Files\Java\jdk-17.0.4.1\bin\java.exe'
.\vscode\Praktikum_PBO_11\bin' 'Myclass'
ini merupakan method inner class
PS C:\Users\Asus\.vscode\Praktikum_PBO_11>
```

2. MENGAkses PRIVATE MEMBER

Program 4. Mengakses variable private

```
OuterDemo2.java X
src > OuterDemo2.java > OuterDemo2
1 public class OuterDemo2 {
2     private int num = 175;
3     public class Inner_Demo {
4         public int getNum() {
5             System.out.println(x: "ini adalah nilai dari variable private outerDemo");
6             return num;
7         }
8     }
9 }
```

Program 5. Class dengan method main () untuk mengakses variable private

```
OuterDemoMain.java X
src > OuterDemoMain.java > OuterDemoMain
1  public class OuterDemoMain {
    Run | Debug
2      public static void main (String[] args) {
3          //Membuat object OuterDemo
4          OuterDemo2 outer = new OuterDemo2();
5
6          //Membuat object InnerDemo
7          OuterDemo2.Inner_Demo inner = outer.new Inner_Demo();
8          System.out.println(inner.getNum());
9      }
10 }
```

Output Terminal

```
PROBLEMS  OUTPUT  TERMINAL  CODEWHISPERER REFERENCE LOG  DEBUG CONSOLE

Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Asus\.vscode\Praktikum_PBO_11> & 'C:\Program Files\Java\jdk-17.0.4.1\bin\java.exe'
p' 'C:\Users\Asus\.vscode\Praktikum_PBO_11\bin' 'OuterDemoMain'
ini adalah nilai dari variable private outerDemo
175
PS C:\Users\Asus\.vscode\Praktikum_PBO_11>
```

3. STATIC NESTED CLASS

```
MyOuter.java X
src > MyOuter.java > MyOuter
1  public class MyOuter {
2      static class Nested_Demo {
3
4      }
5  }
```

Program 6. Membuat instance dari static nested class

```
Outer.java X
src > Outer.java > Outer
1 public class Outer {
2     static class NestedDemo {
3         public void myMethod() {
4             System.out.println ("ini adalah method" + "static nested class");
5         }
6     }
7
8     Run | Debug
9     public static void main (String[] args) {
10         Outer.NestedDemo nested = new Outer.NestedDemo();
11         nested.myMethod();
12     }
```

Output Terminal

```
PROBLEMS OUTPUT TERMINAL CODEWHISPERER REFERENCE LOG DEBUG CONSOLE

Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Asus\.vscode\Praktikum_PBO_11> & 'C:\Program Files\Java\jdk-17.0.4.1\bin\java.exe'
p' 'C:\Users\Asus\.vscode\Praktikum_PBO_11\bin' 'Outer'
ini adalah methodstatic nested class
PS C:\Users\Asus\.vscode\Praktikum_PBO_11>
```

4. LATIHAN

Program 7. Soal latihan nested class

```
NestedClass.java X
src > NestedClass.java > NestedClass
1  class NestedClass {
2      String nama = "Fariz Taufiqul Hafidz"; // lengkapi dengan nama saudara
3      String nim = "L200210192"; // lengkapi dengan nim saudara
4
5      public void printNama() {
6          System.out.println (
7              "Nama : " + nama + "\n" +
8              "NIM : " + nim
9          );
10     }
11
12     static class StaticNestedClass {
13         static String jurusan = "Informatika";
14         public void info() {
15             NestedClass nested = new NestedClass();
16             nested.printNama();
17         }
18     }
19
20     class InnerClass {
21         public void infoProdi() {
22             System.out.println ("Jurusan : " + StaticNestedClass.jurusan);
23         }
24     }
25 }
26 }
```

Class main ()

```
NestedDemo.java X
src > NestedDemo.java > NestedDemo
1  public class NestedDemo {
2      Run | Debug
3      public static void main (String[] args) {
4
5          NestedClass.StaticNestedClass nsc = new NestedClass.StaticNestedClass();
6          nsc.info();
7
8          NestedClass nested = new NestedClass();
9
10         NestedClass.InnerClass nic = nested.new InnerClass();
11         nic.infoProdi();
12     }
13 }
```

Output Terminal

PROBLEMS OUTPUT TERMINAL CODEWHISPERER REFERENCE LOG DEBUG CONSOLE

Windows PowerShell

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Try the new cross-platform PowerShell <https://aka.ms/powershell>

```
PS C:\Users\Asus\.vscode\Praktikum_PBO_11> & 'C:\Program Files\Java\jdk-17.0.4.1\bin\java.exe' -p 'C:\Users\Asus\.vscode\Praktikum_PBO_11\bin' 'NestedDemo'
```

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NIM : L200210192

Jurusan : Informatika

PS C:\Users\Asus\.vscode\Praktikum_PBO_11>