

LAPORAN

PRAKTIKUM SOFTWARE QUALITY ASSURANCE

Pertemuan ke – 4



Disusun Oleh :

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SEKOLAH TINGGI MANAJEMEN INFORMATIKA & KOMPUTER
AKAKOM YOGYAKARTA

2020

BAB I

LISTING

1. Instalasi ant di windows

a.

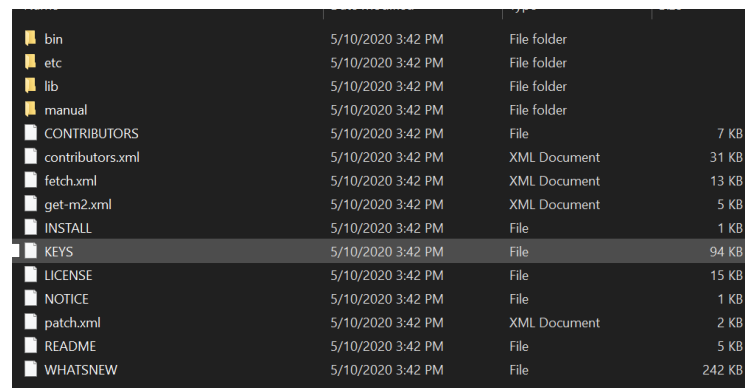
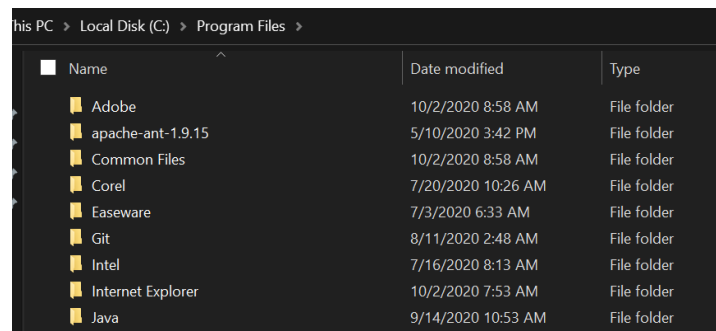
1.9.15 release - requires minimum of Java 5 at runtime

- 1.9.15 .zip archive: [apache-ant-1.9.15-bin.zip](#) [PGP] [SHA512]
- 1.9.15 .tar.gz archive: [apache-ant-1.9.15-bin.tar.gz](#) [PGP] [SHA512]
- 1.9.15 .tar.bz2 archive: [apache-ant-1.9.15-bin.tar.bz2](#) [PGP] [SHA512]

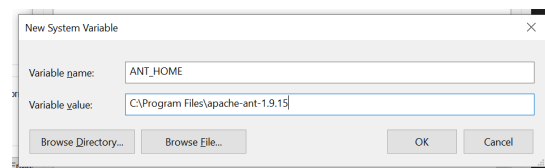
1.10.9 release - requires minimum of Java 8 at runtime

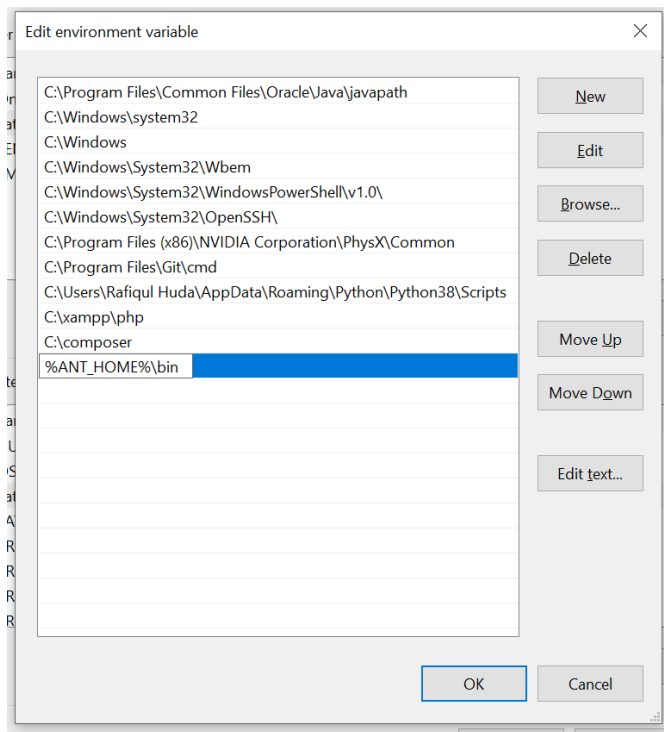
- 1.10.9 .zip archive: [apache-ant-1.10.9-bin.zip](#) [PGP] [SHA512]
- 1.10.9 .tar.gz archive: [apache-ant-1.10.9-bin.tar.gz](#) [PGP] [SHA512]
- 1.10.9 .tar.bz2 archive: [apache-ant-1.10.9-bin.tar.bz2](#) [PGP] [SHA512]
- 1.10.9 .tar.xz archive: [apache-ant-1.10.9-bin.tar.xz](#) [PGP] [SHA512]

b.



c.





d.

```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.18363.1082]
(c) 2019 Microsoft Corporation. All rights reserved.

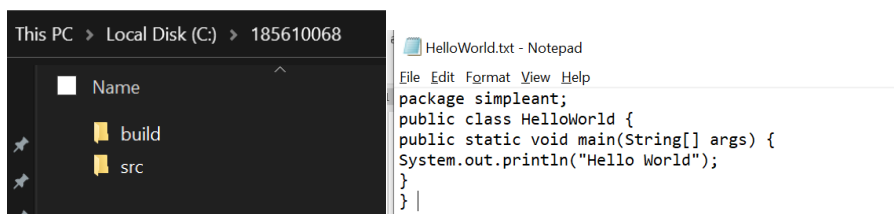
C:\Windows\system32>cd C:
C:\Windows\System32

C:\Windows\system32>ant -version
Apache Ant(TM) version 1.9.15 compiled on May 10 2020

C:\Windows\system32>
```

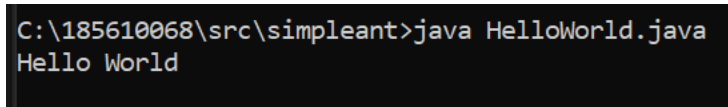
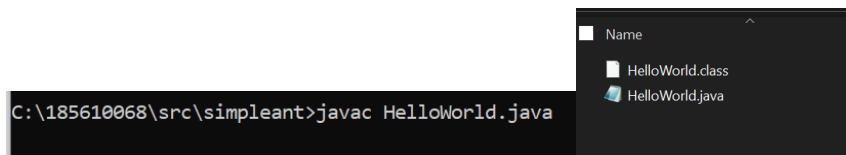
2.

a.

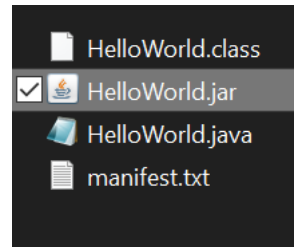
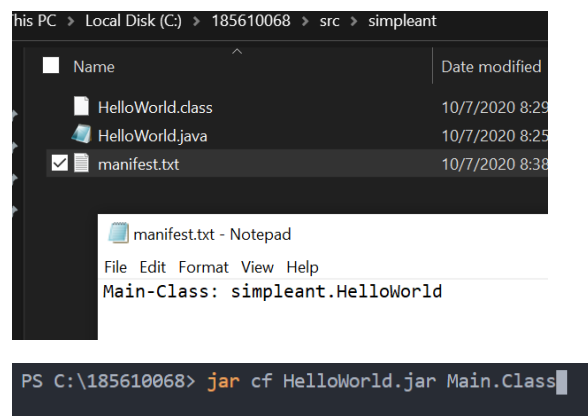


b. memanggil file java tanpa ant

]

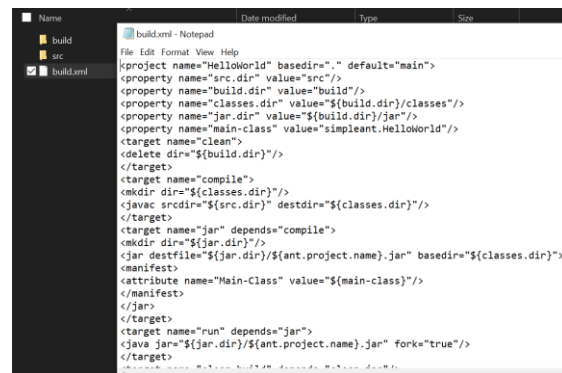


c. memanggil file java tanpa ant dengan jar



3. Memanggil dengan ant

a.



b.

```
C:\185610068>tree
Folder PATH listing
Volume serial number is C2DE-B4BF
C:..
|_ build
|   |_ classes
|   |_ src
|       |_ simpleant
C:\185610068>
```

c.

```
PS C:\185610068> ant clean
Buildfile: C:\185610068\build.xml

clean:
    [delete] Deleting directory C:\185610068\build

BUILD SUCCESSFUL
Total time: 0 seconds
PS C:\185610068>
```

d.

```
PS C:\185610068> ant run
Buildfile: C:\185610068\build.xml

compile:
    [mkdir] Created dir: C:\185610068\build\classes
    c [javac] C:\185610068\build.xml:12: warning: 'includeantruntime' was not set, defaulting to build.sysclasspath=last; set to false for repeatable builds
    classes
    [javac] C:\185610068\build.xml:12: warning: 'd.sysclasspath' is deprecated. Use 'build.sysclasspath' instead of 'd.sysclasspath'
    n [javac] Compiling 1 source file to C:\185610068\build\classes

compile:
    [mkdir] Created dir: C:\185610068\build\classes
    [javac] C:\185610068\build.xml:12: warning: 'includeantruntime' was not set, defaulting to build.sysclasspath=last; set to false for repeatable builds
    [javac] Compiling 1 source file to C:\185610068\build\classes

jar:
    [mkdir] Created dir: C:\185610068\build\jar
    [jar] Building jar: C:\185610068\build\jar\HelloWorld.jar

run:
    [java] Hello World

BUILD SUCCESSFUL
Total time: 1 second
PS C:\185610068>
```

LATIHAN

```
package simpleant;
public class HelloWorld {
    public static void main(String[] args) {
        int Hasil = 20 * 150;
        System.out.println("Hasil Perkalian =" + Hasil);
    }
}
```

```
PS C:\185610068> cd src
PS C:\185610068\src> cd simpleant
PS C:\185610068\src\simpleant> javac HelloWorld.java
```

```
PS C:\185610068\src\simpleant> java HelloWorld.java
Hasil Perkalian =3000
PS C:\185610068\src\simpleant> █
```

```
PS C:\185610068> ant run
Buildfile: C:\185610068\build.xml

compile:
[javac] C:\185610068\build.xml:12: warning: 'includeantruntime'
se for repeatable builds
[javac] Compiling 1 source file to C:\185610068\build\classes

jar:
[jar] Building jar: C:\185610068\build\jar\HelloWorld.jar

run:
[java] Hasil Perkalian =3000

BUILD SUCCESSFUL
Total time: 1 second
PS C:\185610068> █
```

TUGAS

1. Membuat program java

```
public class AksesNama {
    public void tampil(String nama) {
        System.out.println("Hainama");
    }

    public void tampil(String nama, String jk) {
        if (jk.equalsIgnoreCase("Pria")) {
            System.out.println("Huda" + " Ganteng");
        } else if (jk.equalsIgnoreCase("Wanita")) {
            System.out.println("Elsa" + " Cantik");
        } else {
            tampil(nama);
        }
    }
}

public class Main {
    public static void main(String[] args) {
        AksesNama an = new AksesNama();
        an.tampil("Huda", "pria");
    }
}
```

2. membuat file build.xml

a. isi

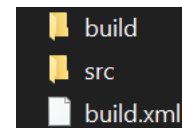
```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <project name="NameProject" default="src" basedir=".">
3
4   <property name="src.dir" value="src" />
5   <property name="build.dir" value="build" />
6   <property name="build.dir.classes" value="build/classes" />
7   <property name="build.dir.jar" value="build/jar" />
8
9   <target name="compile">
10    <mkdir dir="${build.dir.classes}" />
11    <javac srcdir="${src.dir}" destdir="${build.dir.classes}" />
12  </target>
13
14  <target name="package" depends="compile">
15    <jar destfile="${build.dir.jar}/NameAccess.jar" basedir="${build.dir.classes}">
16      <manifest>
17        <attribute name="Main-Class" value="Main" />
18      </manifest>
19    </jar>
20  </target>
21
22  <target name="run" depends="package">
23    <java jar="${build.dir.jar}/NameAccess.jar" fork="true" />
24  </target>
25
26  <target name="clean">
27    <delete dir="${build.dir}" />
28  </target>
29 </project>
```

b. hasil

```
PS C:\185610068> ant compile
Buildfile: C:\185610068\build.xml

compile:
[mkdir] Created dir: C:\185610068\build\classes
[javac] C:\185610068\build.xml:11: warning: 'includeantruntime' was not
lse for repeatable builds
[javac] Compiling 2 source files to C:\185610068\build\classes

BUILD SUCCESSFUL
Total time: 1 second
```



build
src
build.xml

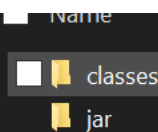
c.

```
PS C:\185610068> ant package
Buildfile: C:\185610068\build.xml

compile:
[javac] C:\185610068\build.xml:11: warning: 'includeantruntime'
lse for repeatable builds
[javac] Compiling 2 source files to C:\185610068\build\classes

package:
[jar] Building jar: C:\185610068\build\jar\NameAccess.jar

BUILD SUCCESSFUL
Total time: 1 second
```



Name
classes
jar

d.

```
PS C:\185610068> ant run
Buildfile: C:\185610068\build.xml

compile:
[javac] C:\185610068\build.xml:11: warning: 'includeantruntime' was not set,
lse for repeatable builds
[javac] Compiling 2 source files to C:\185610068\build\classes

package:
[jar] Building jar: C:\185610068\build\jar\NameAccess.jar

run:
[java] Huda Ganteng

BUILD SUCCESSFUL
Total time: 1 second
```

BAB II

PRAKTIK

1. Instalasi ant di windows

a. kunjungi website apache ant (<https://ant.apache.org/>), lalu cari pada setiap deskripsi keyword download dan akan menemukan link (<https://ant.apache.org/bindownload.cgi>) buka link tersebut dan pilih file dengan format zip.

1.9.15 release - requires minimum of Java 5 at runtime

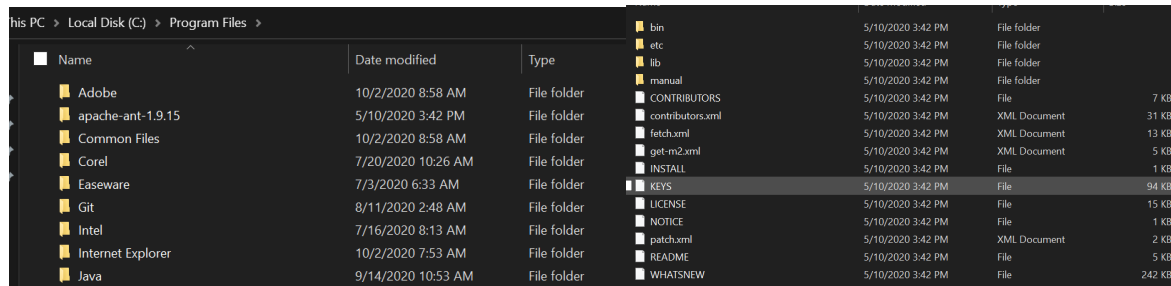
- 1.9.15 .zip archive: [apache-ant-1.9.15-bin.zip](#) [PGP] [SHA512]
- 1.9.15 .tar.gz archive: [apache-ant-1.9.15-bin.tar.gz](#) [PGP] [SHA512]
- 1.9.15 .tar.bz2 archive: [apache-ant-1.9.15-bin.tar.bz2](#) [PGP] [SHA512]

1.10.9 release - requires minimum of Java 8 at runtime

- 1.10.9 .zip archive: [apache-ant-1.10.9-bin.zip](#) [PGP] [SHA512]
- 1.10.9 .tar.gz archive: [apache-ant-1.10.9-bin.tar.gz](#) [PGP] [SHA512]
- 1.10.9 .tar.bz2 archive: [apache-ant-1.10.9-bin.tar.bz2](#) [PGP] [SHA512]
- 1.10.9 .tar.xz archive: [apache-ant-1.10.9-bin.tar.xz](#) [PGP] [SHA512]

b.

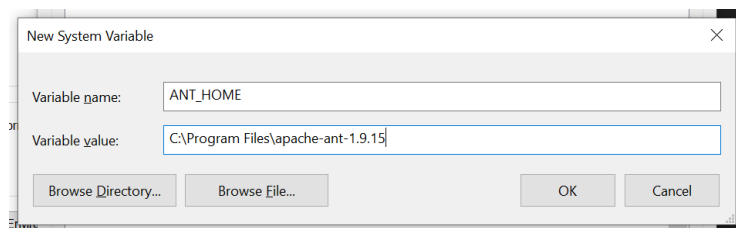
ekstrak file zip tersebut dan letakkan sesuai keinginan.

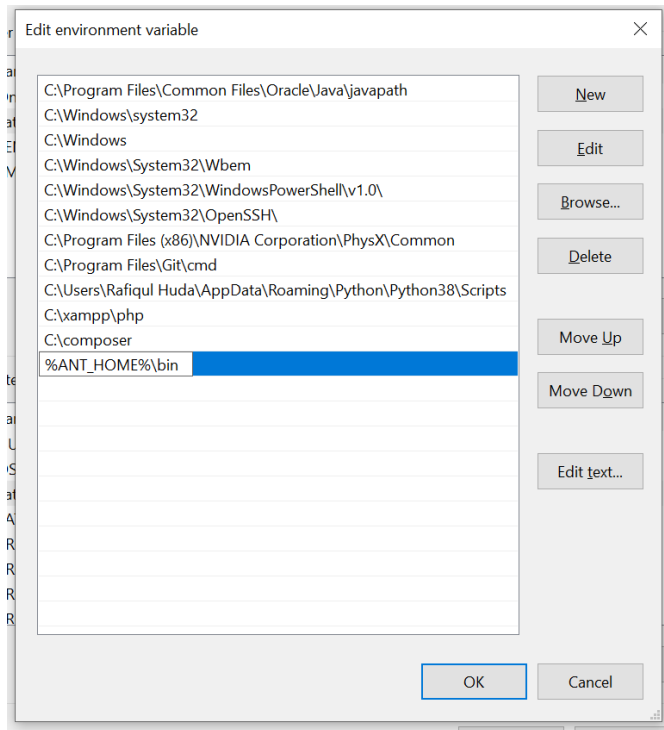


Gambar diatas adalah hasil ekstrak dari file zip.

c.

Kemudian Langkah selanjutnya adalah mengatur path. Tambahkan path baru pada seperti pada gambar dibawah ini dengan nama ANT_HOME dan variable_value sesuai dengan direktori dimana kalian mengekstrak file zip tadi.





Tambahkan %ANT_HOME%\bin pada path dan klik OK.

d. Testing dengan menggunakan keyword ant -version pada command prompt. Pada gambar dibawah menunjukan hasil apabila ant sudah terinstal dengan baik.

```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.18363.1082]
(c) 2019 Microsoft Corporation. All rights reserved.

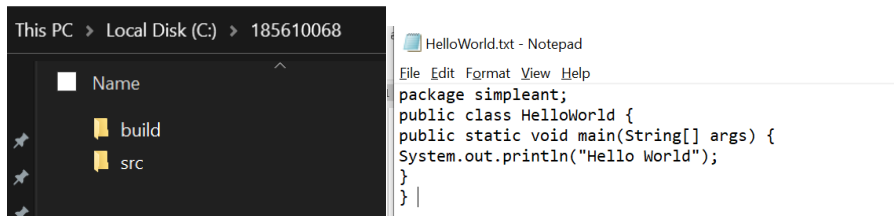
C:\Windows\system32>cd C:
C:\Windows\System32

C:\Windows\system32>ant -version
Apache Ant(TM) version 1.9.15 compiled on May 10 2020

C:\Windows\system32>
```

2.

a.



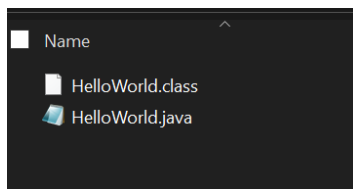
Membuat direktori yang didalamnya memuat folder build dan src. Dimana folder build didalamnya terdapat folder classes dan src didalamnya terdapat simpleant (package). Didalam simpleant buat file java dengan isian seperti pada gambar diatas.

b. memanggil file java tanpa ant

memanggil file java tanpa ant

```
C:\185610068\src\simpleant>javac HelloWorld.java
```

Perintah untuk mengcompile file HelloWorld.java.

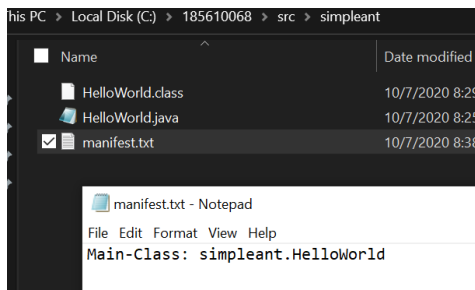


Sehingga akan muncul file baru berekstensi class.

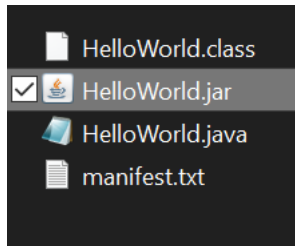
```
C:\185610068\src\simpleant>java HelloWorld.java
Hello World
```

Lalu panggil lagi dengan perintah java HelloWorld.java dan akan muncul hasilnya sama dengan yang kita buat pada langkah pertama tadi.

c. memanggil file java tanpa ant dengan jar



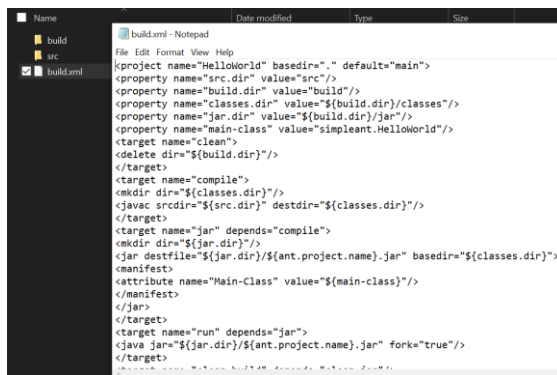
```
PS C:\185610068> jar cf HelloWorld.jar Main.Class
```



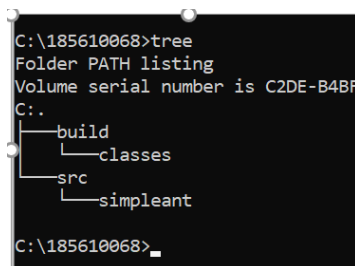
Memanggil menggunakan jar, maka akan muncul file baru berekstensi jar.

3. Memanggil dengan ant

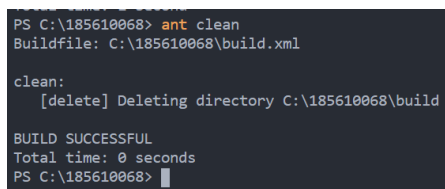
a. buat dulu file build.xml dengan isian seperti pada gambar dibawah.



b. tree untuk melihat struktur direktori pada folder dari file java yang kita buat tadi.



c. clean untuk menghapus isi dari folder build pada direktori 185610068.



d. ant run untuk menjalankan program java menggunakan ant. Sehingga akan terlihat seluruh alur proses compile program pada folder atau direktori dimana file java tersebut disimpan.

```
PS C:\185610068> ant run
Buildfile: C:\185610068\build.xml

compile:
[mkdir] Created dir: C:\185610068\build\classes
c [javac] C:\185610068\build.xml:12: warning: 'includeantruntime' was not set, defaulting to build.sysclasspath=last; set to false for repeatable builds
classes
d.sysclas
[javac] C:\185610068\build.xml:12: warnid: ild\classes
n [javac] Compiling 1 source file to C:\185610068\build\classes

compile:
[mkdir] Created dir: C:\185610068\build\classes
[javac] C:\185610068\build.xml:12: warning: 'includeantruntime' was not set, defaulting to build.sysclasspath=last; set to false for repeatable builds
[javac] Compiling 1 source file to C:\185610068\build\classes

jar:
[mkdir] Created dir: C:\185610068\build\jar
[jar] Building jar: C:\185610068\build\jar\HelloWorld.jar

run:
[java] Hello World

BUILD SUCCESSFUL
Total time: 1 second
PS C:\185610068> []
```

BAB III

LATIHAN

1. Memodifikasi kelas dari praktik menjadi kelas yang menampilkan hasil perkalian antara angka 20 dan 150.

```
package simpleant;
public class HelloWorld {
    public static void main(String[] args) {
        int Hasil = 20 * 150;
        System.out.println("Hasil Perkalian =" + Hasil);
    }
}
```

```
PS C:\185610068> cd src
PS C:\185610068\src> cd simpleant
PS C:\185610068\src\simpleant> javac HelloWorld.java
```

```
PS C:\185610068\src\simpleant> java HelloWorld.java
Hasil Perkalian =3000
PS C:\185610068\src\simpleant> █
```

```
PS C:\185610068> ant run
Buildfile: C:\185610068\build.xml

compile:
[javac] C:\185610068\build.xml:12: warning: 'includeantruntime'
se for repeatable builds
[javac] Compiling 1 source file to C:\185610068\build\classes

jar:
[jar] Building jar: C:\185610068\build\jar\HelloWorld.jar

run:
[java] Hasil Perkalian =3000

BUILD SUCCESSFUL
Total time: 1 second
PS C:\185610068> █
```

Ketika dipanggil menggunakan ant run akan muncul hasilnya berupa 3000 dan akan memunculkan hasil BUILD SUCCESSFUL dimana struktur folder yang kita buat pada direktori penyimpanan file java ini sudah benar.

BAB IV

TUGAS

1. Membuat program java

Membuat program java dengan dua kelas, kelas pertama untuk mendefinisikan berbagai fungsi dan kelas kedua untuk membuat objek dan memanggil fungsi-fungsi yang telah didefinisikan sebelumnya.

```
public class AksesNama {  
  
    public void tampil(String nama) {  
        System.out.println("Hainama");  
    }  
  
    public void tampil(String nama, String jk) {  
        if (jk.equalsIgnoreCase("Pria")) {  
            System.out.println("Huda" + " Ganteng");  
        } else if (jk.equalsIgnoreCase("Wanita")) {  
            System.out.println("Elsa" + " Cantik");  
        } else {  
            tampil(nama);  
        }  
    }  
}  
  
public class Main {  
    public static void main(String[] args) {  
        AksesNama an = new AksesNama();  
        an.tampil("Huda", "pria");  
    }  
}
```

2. membuat file build.xml

Setelah membuat programnya kita buat file build.xml dengan isian seperti dibawah ini.

a. isi

```
1  <?xml version="1.0" encoding="UTF-8"?>  
2  <project name="NameProject" default="src" basedir=".">  
3  
4      <property name="src.dir" value="src" />  
5      <property name="build.dir" value="build" />  
6      <property name="build.dir.classes" value="build/classes" />  
7      <property name="build.dir.jar" value="build/jar" />  
8  
9      <target name="compile">  
10         <mkdir dir="${build.dir.classes}" />  
11         <javac srcdir="${src.dir}" destdir="${build.dir.classes}" />  
12     </target>  
13  
14     <target name="package" depends="compile">  
15         <jar destfile="${build.dir.jar}/NameAccess.jar" basedir="${build.dir.classes}">  
16             <manifest>  
17                 <attribute name="Main-Class" value="Main" />  
18             </manifest>  
19         </jar>  
20     </target>  
21  
22     <target name="run" depends="package">  
23         <java jar="${build.dir.jar}/NameAccess.jar" fork="true" />  
24     </target>  
25  
26     <target name="clean">  
27         <delete dir="${build.dir}" />  
28     </target>  
29 </project>
```

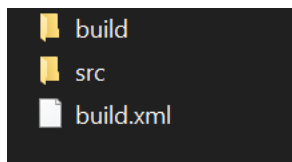
b. hasil

hasil Ketika kita coba compile akan seperti gambar dibawah dimana akan menghasilkan folder baru Berna build yang didalamnya mempunyai folder bernama class.

```
PS C:\185610068> ant compile
Buildfile: C:\185610068\build.xml

compile:
[mkdir] Created dir: C:\185610068\build\classes
[javac] C:\185610068\build.xml:11: warning: 'includeantruntime' was not
lse for repeatable builds
[javac] Compiling 2 source files to C:\185610068\build\classes

BUILD SUCCESSFUL
Total time: 1 second
```



c. Membuat file JAR

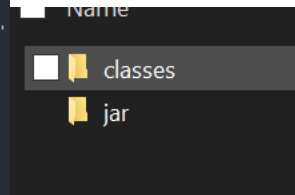
lalu menggunakan package untuk membuat folder jar dan file berekstensi jar.

```
PS C:\185610068> ant package
Buildfile: C:\185610068\build.xml

compile:
[javac] C:\185610068\build.xml:11: warning: 'includeantruntime'
lse for repeatable builds
[javac] Compiling 2 source files to C:\185610068\build\classes

package:
[jar] Building jar: C:\185610068\build\jar\NameAccess.jar

BUILD SUCCESSFUL
Total time: 1 second
```



d. Menjalankan ant run

terakhir adalah menjalankan program dengan ant run. Dimana apabila kita lihat pada gambar dibawah ini prosesnya akan berhasil. Karena output sesuai dengan program dan hasilnya pun BUILD SUCCESSFUL. Sehingga bisa kita katakan program berhasil dijalankan dengan ant run.

```
PS C:\185610068> ant run
Buildfile: C:\185610068\build.xml

compile:
[javac] C:\185610068\build.xml:11: warning: 'includeantruntime' was not set,
lse for repeatable builds
[javac] Compiling 2 source files to C:\185610068\build\classes

package:
[jar] Building jar: C:\185610068\build\jar\NameAccess.jar

run:
[java] Huda Ganteng

BUILD SUCCESSFUL
Total time: 1 second
```

BAB V

KESIMPULAN

Dengan mempelajari keempat kali ini, mahasiswa menjadi tahu dan paham mengenai apa itu apache ant dan bagaimana cara kerjanya serta penerapannya. Dan dengan itu maka mahasiswa akan mengerti bagaimana alur dari suatu program dapat dicompile. Dan dengan menggunakan ant ini akan mengajarkan pada mahasiswa untuk dapat mengatur suatu file atau kumpulan file agar tertata rapi sehingga alur prosesnya juga akan jelas.