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The screenshot shows the NetBeans IDE interface with the title "JavaApplication15 - NetBeans IDE 8.2". The menu bar includes File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help. The toolbar has icons for file operations like New, Open, Save, Cut, Copy, Paste, Find, and Run. The Projects tab is selected, showing a hierarchy of projects: Source Packages (javaapplication14, JavaApplication14.java, NewClass.java), Libraries (JavaApplication15), Source Packages (<default package>, abstrakclass.java, objekabstrakclass.java, turunanabstrakclass.java), and Test Packages (JavaApplication15.java, abstrakclass.java). The Libraries node also lists libraries. The Kali - Navigator tab shows the members of the 'abstrakclass' package, including fields a, b, c and methods kali(), clone(), equals(), finalize(), getClass(), hashCode(), notify(), and notifyAll(). The main editor window displays Java code for an abstract class 'abstrakclass'. The code includes a license header, a copyright notice for Fannisa RM, and the class definition itself. The Output tab at the bottom is empty.

The screenshot shows the JavaApplication15 project in NetBeans IDE 8.2. The code editor displays the `turunabstrakclass.java` file, which contains a main method that creates an instance of `abstrakclass`. The class hierarchy pane on the left shows the inheritance relationship between `objekabstrakclass`, `abstrakclass`, and `JavaApplication15`.

```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
/**
 *
 */
public class objekabstrakclass {
    public static void main(String[] args) {
        abstrakclass a = new abstrakclass(2,3,4);
    }
}
```

The class hierarchy pane shows:

- `objekabstrakclass`:
 - `main(String[] args)`
 - `clone() : Object`
 - `equals(Object o) : boolean`
 - `finalize()`
 - `getClass() : Class<?>`
 - `hashCode() : int`
 - `notify()`
 - `notifyAll()`
 - `toString() : String`
 - `wait(long l)`
 - `wait(long l, int i)`
 - `wait()`
- `abstrakclass`:
 - `clone() : Object`
 - `equals(Object o) : boolean`
 - `finalize()`
 - `getClass() : Class<?>`
 - `hashCode() : int`
 - `notify()`
 - `notifyAll()`
 - `toString() : String`
 - `wait(long l)`
 - `wait(long l, int i)`
 - `wait()`
- `JavaApplication15`:
 - `clone() : Object`
 - `equals(Object o) : boolean`
 - `finalize()`
 - `getClass() : Class<?>`
 - `hashCode() : int`
 - `notify()`
 - `notifyAll()`
 - `toString() : String`
 - `wait(long l)`
 - `wait(long l, int i)`
 - `wait()`

JavaApplication15 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Projects X Files Services

Start Page X JavaApplication15.java X abstrakclass.java X objekabstrakclass.java X turunanabstrakclass.java X

Source History

```
1  /*
2   * To change this license header, choose License Headers in Project Properties.
3   * To change this template file, choose Tools | Templates
4   * and open the template in the editor.
5   */
6
7 /**
8 *
9 * @author Fannisa RM
10 */
11 public class turunanabstrakclass extends abstrakclass{
12     int x;
13     public turunanabstrakclass(int a, int b, int c) {
14         super(a, b, c);
15         x = a+b+c;
16     }
17     public void printX(){
18         System.out.println(x);
19     }
20
21 }
22
23 }
```

printx - Navigator X

Members <empty>

turunanabstrakclass :: abstrakclass

- x : int
- turunanabstrakclass(int a, int b, int c)
- printX()
- clone() : Object
- equals(Object o) : boolean
- finalize()
- getClass() : Class<?>
- hashCode() : int
- kali() : int
- notify()
- notifyAll()
- toString() : String

Output X

18:29 0:28 07/12/2019

JavaApplication15 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Projects X Files Services

Start Page X JavaApplication15.java X abstrakclass.java X objekabstrakclass.java X turunanabstrakclass.java X

Source History

```
1 /*
2 * To change this license header, choose License Headers in Project Properties.
3 * To change this template file, choose Tools | Templates
4 * and open the template in the editor.
5 */
6
7 /**
8 *
9 * @author Fannisa RM
10 */
11 public class objekabstrakclass {
12     public static void main(String[]args){
13         turunanabstrakclass a = new turunanabstrakclass(2,3,2);
14         a.printX();
15         System.out.println(a.kali());
16     }
17 }
```

main - Navigator X

Members <empty>

objekabstrakclass

- main(String[] args)
- clone() : Object
- equals(Object o) : boolean
- finalize()
- getClass() : Class<?>
- hashCode() : int
- notify()
- notifyAll()
- toString() : String
- wait() : void
- wait(long l) : void
- wait(long l, int i) : void
- wait() : void

Output - JavaApplication15 (run) X

run:
7
12
BUILD SUCCESSFUL (total time: 0 seconds)

15:35 0:30 07/12/2019

Windows Taskbar

Metode abstract

JavaApplication15 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Projects X Files Services

Start Page X JavaApplication15.java X abstrakclass.java X objekabstrakclass.java X turunanabstrakclass.java X methodabstract.java X <default config>

Source History

1 /*
2 * To change this license header, choose License Headers in Project Properties.
3 * To change this template file, choose Tools | Templates
4 * and open the template in the editor.
5 */
6
7 /**
8 *
9 * @author Fannisa RM
10 */
11 public abstract class methodabstract {
12 public abstract int luas();
13 public abstract int keliling();
14
15 public int getluas(){
16 return luas();
17 }
18 public int getkel(){
19 return keliling();
20 }
21 }
22

getkel - Navigator X

Members

methodabstract

- luas() int
- kelling() int
- getluas() int
- getkel() int
- clone() Object
- equals(Object o) boolean
- finalize()
- getClass() Class<?>
- hashCode() int
- notify()
- notifyAll()
- toString() String

Output - JavaApplication15 (run) X

>> run:

035 19:27 INS

07/12/2019

JavaApplication15 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Projects X Files Services

...ave X objekabstrakclass.java X turunanabstrakclass.java X methodabstract.java X persegi.java X methodmain.java X <default config>

Source History

1 /*
2 * To change this license header, choose License Headers in Project Properties.
3 * To change this template file, choose Tools | Templates
4 * and open the template in the editor.
5 */
6
7 /**
8 *
9 * @author Fannisa RM
10 */
11 public class methodmain {
12 public static void main (String[]args){
13 persegi p = new persegi () ;
14 System.out.println("keliling = "+p.getkel());
15 System.out.println("luas = "+p.getluas());
16 }
17 }
18

main - Navigator X

Members

methodmain

- main(String[] args)
- clone() Object
- equals(Object o) boolean
- finalize()
- getClass() Class<?>
- hashCode() int
- notify()
- notifyAll()
- toString() String
- wait() long
- wait(long l, int i)
- wait()

Output - JavaApplication15 (run) X

>> run:
keliling = 20
luas = 25
BUILD SUCCESSFUL (total time: 0 seconds)

15:36 042
07/12/2019

Latihan

JavaApplication15 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Projects Files Services

...ave persegi.java methodmain.java persegipanjang.java jaajaran.java lingkaran.java segitiga.java

Source History

```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */

/*
 *
 * @author Fannisa RM
 */
public class persegipanjang extends methodabstract{
    int panjang;
    int lebar;
    @Override
    public int luas(){
        return panjang*lebar;
    }
    @Override
    public int keliling(){
        return 2*(panjang+lebar);
    }
}
```

Output - JavaApplication15 (run) >> run:

Windows Taskbar: File Explorer, Edge, Google Chrome, Spotify, FileZilla, Word

JavaApplication15 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Projects Files Services

...ave persegi.java methodmain.java persegipanjang.java jaajaran.java lingkaran.java segitiga.java

Source History

```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */

/*
 *
 * @author Fannisa RM
 */
public class jaajaran extends methodabstract{
    int alas=5;
    int tinggi=10;
    int sisimiring=6;
    @Override
    public int luas(){
        return alas*tinggi;
    }
    @Override
    public int keliling(){
        return 2*(alas+sisimiring);
    }
}
```

Output - JavaApplication15 (run) >> run:

Windows Taskbar: File Explorer, Edge, Google Chrome, Spotify, FileZilla, Word

JavaApplication15 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Projects Files Services

Source History ...ava persegi.java methodmain.java persegipanjang.java jajargenjang.java lingaran.java segitiga.java

JavaApplication13 JavaApplication14 JavaApplication14.java NewClass.java

JavaApplication15 JavaApplication15.java abstakclass.java jajargenjang.java lingaran.java methodabstract.java methodmain.java objekabstrakclass.java

keiling - Navigator Members

Lingaran :: methodabstract

- r : int
- luas() : int methodabstract
- keliling() : int methodabstract
- clone() : Object
- equals(Object o) : boolean
- finalize()
- getClass() : Class<?>
- getKeluarga() : int
- getLuas() : int
- hashCode() : int
- notify()
- notifyAll()

Output - JavaApplication15 (run) >> run:

19:26 07/12/2019

```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
/**
 *
 * @author Fannisa RM
 */
public class lingaran extends methodabstract{
    int r=14;
    @Override
    public int luas(){
        return (22*2*r)/7;
    }
    @Override
    public int keliling(){
        return (22*2*r)/7;
    }
}
```

JavaApplication15 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Projects Files Services

Source History ...ava persegi.java methodmain.java persegipanjang.java jajargenjang.java lingaran.java segitiga.java

JavaApplication13 JavaApplication14 JavaApplication14.java NewClass.java

JavaApplication15 JavaApplication15.java abstakclass.java jajargenjang.java lingaran.java methodabstract.java methodmain.java objekabstrakclass.java

Navigator Members

segitiga :: methodabstract

- alas : int
- tinggi : int
- sismiring : int
- luas() : int methodabstract
- keliling() : int methodabstract
- clone() : Object
- equals(Object o) : boolean
- finalize()
- getClass() : Class<?>
- getKeluarga() : int
- getLuas() : int
- hashCode() : int

Output - JavaApplication15 (run) >> run:

23:2 07/12/2019

```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
/**
 *
 * @author Fannisa RM
 */
public class segitiga extends methodabstract {
    int alas=6;
    int tinggi=9;
    int sismiring=10;
    @Override
    public int luas(){
        return (alas*tinggi)/2;
    }
    @Override
    public int keliling(){
        return alas+tinggi+sismiring;
    }
}
```

JavaApplication15 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Projects Files Services

Source History Search (Ctrl+F)

...ave persegi.java methodmain.java persegipanjang.java jaajaranjang.java lingkaran.java segitiga.java

10 */

11 public class methodmain {

12 public static void main (String[]args){

13 persegi p = new persegi();

14 System.out.println("persegi");

15 System.out.println("keliling = "+p.getkel());

16 System.out.println("luas = "+p.getluas()+"\n");

17 persegipanjang pp = new persegipanjang();

18 System.out.println("persegi panjang");

19 System.out.println("keliling = "+pp.getkel());

20 System.out.println("luas = "+pp.getluas()+"\n");

21 jaajaranjang j = new jaajaranjang();

22 System.out.println("jaajaranjang");

23 System.out.println("keliling = "+j.getkel());

24 System.out.println("luas = "+j.getluas()+"\n");

25 lingkaran l = new lingkaran();

26 System.out.println("lingkaran");

27 System.out.println("keliling = "+l.getkel());

28 System.out.println("luas = "+l.getluas()+"\n");

29 segitiga s = new segitiga();

30 System.out.println("segitiga");

31 System.out.println("keliling = "+s.getkel());

32 System.out.println("luas = "+s.getluas()+"\n");

33 }

34 }

35 }

36 }

Output - JavaApplication15 (run) >> run:

19:49 07/12/2019

JavaApplication15 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Projects Files Services

Source History Search (Ctrl+F)

...ave persegi.java methodmain.java persegipanjang.java jaajaranjang.java lingkaran.java segitiga.java

Output - JavaApplication15 (run) >>

run:

persegi

keliling = 20

luas = 25

persegi panjang

keliling = 20

luas = 24

jaajaranjang

keliling = 22

luas = 50

lingkaran

keliling = 68

luas = 616

segitiga

keliling = 26

luas = 27

BUILD SUCCESSFUL (total time: 0 seconds)

19:50 07/12/2019

Tugas

JavaApplication15 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Projects X Files Services

...ave methodmain.java persegipanjang.java jaajaranjang.java lingkaran.java segitiga.java bangunruang.java

Source History

```
1 /* To change this license header, choose License Headers in Project Properties.
2 * To change this template file, choose Tools | Templates
3 * and open the template in the editor.
4 */
5
6 /**
7 *
8 */
9 * @author Fannisa RM
10 */
11 abstract class bangunruang {
12     public abstract int luaspermukaan();
13     public abstract int volume();
14     public int getluas(){
15         return luaspermukaan();
16     }
17     public int getvol(){
18         return volume();
19     }
20 }
```

getvol - Navigator

Members

- bangunruang
 - luaspermukaan() : int
 - volume() : int
 - getluas() : int
 - getvol() : int
 - done() : Object
 - equal(Object o) : boolean
 - finalize()
 - getClass() : Class<?>
 - hashCode() : int
 - notify()
 - notifyAll()
 - toString() : String

Output - JavaApplication15 (run) X

run:

19:6 INS

Windows Taskbar: File Explorer, Edge, Google Chrome, Spotify, FileZilla, Word

System Tray: 20:25 07/12/2019

Balok

JavaApplication15 - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Projects X Files Services

...ave bangunruang.java balok.java kubus.java bola.java kerucut.java bangunruangdemo.java jaajaranjang.java lingkaran.java methodabstract.java methodmain.java objekabstractclass.java persegi.java persegiapanjang.java prismsegitiga.java segitiga.java tac.java

Source History

```
1 /*
2 * To change this license header, choose License Headers in Project Properties.
3 * To change this template file, choose Tools | Templates
4 * and open the template in the editor.
5 */
6
7 /**
8 *
9 */
10 * @author Fannisa RM
11 */
12 public class balok extends bangunruang {
13     int panjang=4;
14     int lebar=5;
15     int tinggi=6;
16
17     @Override
18     public int volume(){
19         return panjang*lebar*tinggi;
20     }
21
22     @Override
23     public int luaspermukaan(){
24         return 2*(panjang*lebar)+(panjang*tinggi)+(lebar*tinggi);
25     }
26 }
```

luaspermukaan - Navigator

Members

- balok :: bangunruang
 - panjang : int
 - lebar : int
 - tinggi : int
 - volume() : int + bangunruang
 - luaspermukaan() : int + bangunruang
 - clone() : Object
 - equal(Object o) : boolean
 - finalize()
 - getClass() : Class<?>
 - getluas() : int
 - getvol() : int
 - hashCode() : int

Output - JavaApplication15 (run) X

run:

24:6 INS

Windows Taskbar: File Explorer, Edge, Google Chrome, Spotify, FileZilla, Word

System Tray: 20:54 07/12/2019

Kubus

The screenshot shows the NetBeans IDE interface with the project JavaApplication15 open. The code editor displays the Kubus.java file, which extends the bangunruang class. The volume() method is overridden to return $6 \times \text{sisi}^3$. The Navigator pane shows the members of the Kubus class, including its constructor and various methods like luarpermukaan(), volume(), clone(), equals(), getClass(), hashCode(), notify(), and notifyAll(). The status bar at the bottom right shows the date as 07/12/2019 and the time as 19:27.

```
1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6
7  /**
8  *
9  * @author Fannisa RM
10 */
11 public class kubus extends bangunruang{
12     int sisi=5;
13     @Override
14     public int luaspermukaan() {
15         return sisi*sisi*sisi;
16     }
17     @Override
18     public int volume() {
19         return 6*sisi*sisi*sisi;
20     }
21 }
```

Bola

The screenshot shows the NetBeans IDE interface with the project JavaApplication15 open. The code editor displays the Bola.java file, which extends the bangunruang class. The volume() method is overridden to return $(4 \times 22 \times r^3) / 7$. The Navigator pane shows the members of the Bola class, including its constructor and various methods like luarpermukaan(), volume(), clone(), equals(), getClass(), hashCode(), notify(), and notifyAll(). The status bar at the bottom right shows the date as 07/12/2019 and the time as 20:55.

```
1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6
7  /**
8  *
9  * @author Fannisa RM
10 */
11 public class bola extends bangunruang{
12     int r=7;
13
14     @Override
15     public int luaspermukaan() {
16         return (4*22*r*r)/7;
17     }
18     @Override
19     public int volume() {
20         return ((4*22*r*r*r)/7)/3;
21     }
22 }
```

Kerucut

The screenshot shows the NetBeans IDE interface with the following details:

- Title Bar:** JavaApplication15 - NetBeans IDE 8.2
- Menu Bar:** File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
- Toolbar:** Standard NetBeans toolbar with icons for file operations.
- Projects Tab:** Shows a list of Java files including bangunruang.java, bangunruang.java, bangunruangdemo.java, bola.java, jaergenjang.java, kerucut.java, kubus.java, lingkaran.java, methodabstract.java, methodmain.java, objekabstrakclass.java, persegi.java, persegiapanjang.java, prismasegitiga.java, segitiga.java, and tac.java.
- Source Editor:** Displays the code for the `kerucut` class, which extends `bangunruang`. The code includes fields `r`, `tinggi`, and `s`, and methods `luaspermukaan()` and `volume()`.
- Navigator:** Shows the members of the `kerucut` class, including `r`, `tinggi`, `s`, `luaspermukaan()`, `volume()`, `clone()`, `equals()`, `finalize()`, `getClass()`, `getluas()`, `getvol()`, and `hashCode()`.
- Output:** Shows the command `>> run:`
- System Tray:** Shows icons for battery, signal, and date/time (07/12/2019).

Prismasegitiga

The screenshot shows the NetBeans IDE interface with the following details:

- Title Bar:** JavaApplication15 - NetBeans IDE 8.2
- Menu Bar:** File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
- Toolbar:** Standard NetBeans toolbar with icons for file operations.
- Projects Tab:** Shows a list of Java files including bangunruang.java, bangunruang.java, bangunruangdemo.java, bola.java, jaergenjang.java, kerucut.java, kubus.java, lingkaran.java, methodabstract.java, methodmain.java, objekabstrakclass.java, persegi.java, persegiapanjang.java, prismasegitiga.java, segitiga.java, and tac.java.
- Source Editor:** Displays the code for the `prismasegitiga` class, which extends `bangunruang`. The code includes fields `luas alas`, `keliling alas`, and `tinggi`, and methods `luaspermukaan()` and `volume()`.
- Navigator:** Shows the members of the `prismasegitiga` class, including `luas alas`, `keliling alas`, `tinggi`, `luaspermukaan()`, `volume()`, `clone()`, `equals()`, `finalize()`, `getClass()`, `getluas()`, `getvol()`, and `hashCode()`.
- Output:** Shows the command `>> run:`
- System Tray:** Shows icons for battery, signal, and date/time (07/12/2019).

The screenshot shows the NetBeans IDE interface with the title "JavaApplication15 - NetBeans IDE 8.2". The menu bar includes File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help. The toolbar has icons for project, files, services, and various tools. The Projects tab shows several Java files: bangunruang.java, bangunrunung.java, banguntuangdemo.java, bola.java, jaargenjang.java, kerucut.java, kubus.java, lingkaran.java, methodabstract.java, methodmain.java, objekabstrakclass.java, persegi.java, persegipanjang.java, prismasegitiga.java, segitiga.java, tac.java. The main editor window displays the following Java code:

```
8 * @author Fannisa RM
9 */
10 /
11 public class banguntuangdemo {
12     public static void main (String[]args){
13         balok b = new balok();
14         System.out.println("balok");
15         System.out.println("volume = "+b.getvol());
16         System.out.println("luaspermukaan = "+b.getluas()+"\n");
17         kubus pp = new kubus();
18         System.out.println("kubus");
19         System.out.println("volume = "+pp.getvol());
20         System.out.println("luaspermukaan = "+pp.getluas()+"\n");
21         bola j = new bola();
22         System.out.println("bola");
23         System.out.println("volume = "+j.getvol());
24         System.out.println("luaspermukaan = "+j.getluas()+"\n");
25         kerucut l = new kerucut();
26         System.out.println("kerucut");
27         System.out.println("volume = "+l.getvol());
28         System.out.println("luaspermukaan = "+l.getluas()+"\n");
29         prismasegitiga s = new prismasegitiga();
30         System.out.println("prismasegitiga");
31         System.out.println("volume = "+s.getvol());
32         System.out.println("luas = "+s.getluas()+"\n");
33     }
34 }
35 }
36 }
```

The Output window shows "run:"

The screenshot shows the JavaApplication15 project in NetBeans IDE 8.2. The Projects tab lists various Java files: bangunruang.java, bangunruangdemo.java, bola.java, jagarengjang.java, kerucut.java, kubus.java, lingkaran.java, methodabstract.java, methodmain.java, objekabstrakclass.java, persegi.java, persegiapanjang.java, prismasegitiga.java, segitiga.java, and tac.java. The main - Navigator tab shows the members of the bangunruangdemo class, including its constructor, clone(), equals(), finalize(), getClass(), hashCode(), notify(), notifyAll(), toString(), wait(), and wait(). The Output - JavaApplication15 (run) tab displays the execution results for each shape:

```
run:
balek
volume = 120
luaspermukaan = 94

kubus
volume = 150
luaspermukaan = 125

bola
volume = 1437
luaspermukaan = 616

kerucut
volume = 513
luaspermukaan = 264

prismasegitiga
volume = 448
luas = 1144

BUILD SUCCESSFUL (total time: 0 seconds)
```