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Cellphone.java

```
D: > MATKUL UDINUS 4 > PBO > J Cellphone.java > Cellphone > volumeDown()
1  import java.util.ArrayList;
2
3  public class Cellphone implements Phone{
4      ArrayList<Contact> contact;
5      String merek;
6      String type;
7      int pulsa = 0;
8      int batteryLevel;
9      int status;
10     int volume;
11
12     public Cellphone(String merek,String type)
13     {
14         this.merek = merek;
15         this.type = type;
16         this.batteryLevel = (int)(Math.random()*(100-0+1)+0);
17         this.contact = new ArrayList<>();
18     }
19
20     public boolean isOn(){
21         if(this.status==1)
22             return true;
23         else{
24             System.out.println(x:"HP Belum Dihidupkan.");
25             return false;
26         }
27     }
28
29     public void powerOn(){
30         this.status = 1;
31         System.out.println(x:"HP Hidup");
32     }
33 }
```

D: > MATKUL UDINUS 4 > PBO > J Cellphone.java > Cellphone > volumeDown()

```
28
29     public void powerOn(){
30         this.status = 1;
31         System.out.println(x:"HP Hidup");
32     }
33
34     public void powerOff(){
35         this.status = 0;
36         System.out.println(x:"HP mati");
37     }
38
39     public void volumeUp(){
40         if(this.status == 0){
41             System.out.println(x:"HP Mati: Tidak Bisa VolumeUp");
42         }
43         else
44         {
45             this.volume++;
46             if(this.volume>=100)
47             {
48                 this.volume = 100;
49             }
50         }
51     }
52
53     public void volumeDown(){
54         if(this.status == 0){
55             System.out.println(x:"HP Mati: Tidak Bisa VolumeUp");
56         }
57         else
58         {
59             this.volume--;
60             if(this.volume<=0)
```

D: > MATKUL UDINUS 4 > PBO > J Cellphone.java > Cellphone > volumeDown()

```
62         this.volume = 0;
63     }
64 }
65 }
66
67 public int getVolume(){
68     if(isOn())
69         return this.volume;
70     else{
71         return 0;
72     }
73 }
74
75 public void topUpPulsa(int val){
76     if(isOn())
77         this.pulsa += val;
78 }
79
80
81 public int getPulsa(){
82     if(isOn())
83         return this.pulsa;
84     else{
85         return 0;
86     }
87 }
88
89 public void addContact(String nama, String nomor){
90     if(isOn()){
91         contact.add(new Contact(nama,nomor));
92     }
93 }
94
```

D: > MATKUL UDINUS 4 > PBO > J Cellphone.java > Cellphone > volumeDown()

```
88
89 public void addContact(String nama, String nomor){
90     if(isOn()){
91         contact.add(new Contact(nama,nomor));
92     }
93 }
94
95 public void showContact(){
96     if(isOn()){
97         if(contact.isEmpty()){
98             System.out.println(x:"Kontak Kosong.");
99         } else{
100             System.out.println(x:"-----> List Kontak <-----");
101             for(int i=0; i<contact.size();i++){
102                 Contact kt = contact.get(i);
103                 System.out.println((i+1)+". "+kt.nama+" - "+kt.nomor);
104             }
105         }
106     }
107 }
108
109 public void findContact(String nama){
110     if(isOn()){
111         if(contact.isEmpty()){
112             System.out.println(x:"Kontak Kosong.");
113         } else{
114             System.out.println("Cari Kontak Menggunakan Nama "+nama+"...");
115             String nama2 = nama.toLowerCase();
116             boolean found = false;
117             int count = 1;
118             for(int i=0; i<contact.size();i++){
119                 Contact kt = contact.get(i);
120                 if(kt.nama.toLowerCase().equals(nama2)){
121                     System.out.println(kt.nama+" - "+kt.nomor);
```

```

D: > MATKUL UDINUS 4 > PBO > J Cellphone.java > Cellphone > volumeDown()
109     public void findContact(String nama){
110         if(isOn()){
111             if(contact.isEmpty()){
112                 System.out.println("Kontak Kosong.");
113             } else{
114                 System.out.println("Cari Kontak Menggunakan Nama "+nama+"...");
115                 String nama2 = nama.toLowerCase();
116                 boolean found = false;
117                 int count = 1;
118                 for(int i=0; i<contact.size();i++){
119                     Contact kt = contact.get(i);
120                     if(kt.nama.toLowerCase().equals(nama2)){
121                         System.out.println(kt.nama+" - "+kt.nomor);
122                         found = true;
123                         count++;
124                     }
125                 }
126                 if(!found)
127                     System.out.println("Kontak Dengan Nama "+nama+" Tidak Ditemukan...");
128             }
129         }
130     }
131 }
132 }

```

Contact.java

```

D: > MATKUL UDINUS 4 > PBO > J Contact.java > Contact
1  public class Contact {
2      String nama;
3      String nomor;
4
5      public Contact(String nama, String nomor)
6      {
7          this.nama = nama;
8          this.nomor = nomor;
9      }
10
11     String getNama()
12     {
13         return this.nama;
14     }
15
16     String getNomor()
17     {
18         return this.nomor;
19     }
20
21 }

```

Phone.java

```
D: > MATKUL UDINUS 4 > PBO > Phone.java > Phone
1 public interface Phone
2 {
3     public static final int MAX_VOLUME = 100;
4     public static final int MIN_VOLUME = 0;
5     public static final int MAX_BATT_LEVEL = 100;
6     public static final int MIN_BATT_LEVEL = 0;
7
8     void powerOn();
9     void powerOff();
10    void volumeUp();
11    void volumeDown();
12    int getVolume();
13    void topUpPulsa(int val);
14    int getPulsa();
15    void addContact(String nama, String nomor);
16    void showContact();
17    void findContact(String nama);
18 }
```

CellphoneMain.java

```
D: > MATKUL UDINUS 4 > PBO > CellphoneMain.java > CellphoneMain
1 public class CellphoneMain {
2     public static void main(String[] args){
3         Cellphone cp = new Cellphone("Ipon", "Pro");
4         cp.volumeUp();
5         cp.powerOn();
6         System.out.println("Volume : "+cp.getVolume());
7         cp.volumeUp();
8         cp.volumeUp();
9         cp.volumeUp();
10        cp.volumeDown();
11        System.out.println("Volume : "+cp.getVolume());
12        System.out.println("Battery : "+cp.batteryLevel);
13        cp.topUpPulsa(55000);
14        System.out.println("Pulsa : "+cp.getPulsa());
15        cp.addContact("Tono", "0856123321");
16        cp.addContact("Tunu", "0856321123");
17        cp.addContact("Tini", "0856121314");
18        cp.showContact();
19        cp.findContact("Tini");
20        cp.powerOff();
21    }
22 }
```

Hasil Run:

```
Microsoft Windows [Version 10.0.19045.2846]
(c) Microsoft Corporation. All rights reserved.

C:\Users\G E T S   A G Y A> cmd /C ""C:\Users\G E T S   A G Y A\AppData\Roaming\Code\User\globalStorage\pleiades.java-extension-pack-jdk\java\17\bin\java.exe" -agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:65430 -XX:+ShowCodeDetailsInExceptionMessages -cp "C:\Users\G E T S   A G Y A\AppData\Local\Temp\vscodesws_e6b6d\jdt_ws\jdt.ls-java-project\bin" CellphoneMain "
HP Mati: Tidak Bisa VolumeUp
HP Hidup
Volume : 0
Volume : 2
Battery : 17
Pulsa : 55000
-----> List Kontak <-----
1. Tono - 0856123321
2. Tunu - 0856321123
3. Tini - 0856121314
Cari Kontak Menggunakan Nama Tini...
Tini - 0856121314
HP mati

C:\Users\G E T S   A G Y A>
```

Penjelasan:

Class Cellphone

- Method powerOn : untuk menyalakan ponsel
- Method powerOff : untuk mematikan ponsel
- Method isOn : untuk mengecek apakah ponsel kondisi hidup atau mati. Jika mati maka terdapat output penjelasan.
- Method VolumeUp : cek dengan method isOn menambahkan volume.
- Method Volumedown : cek dengan method isOn mengurangi volume.
- Method Getvolume : cek dengan method isOn melihat data volume..
- Method topUpPulsa : menambahkan pulsa.
- Method getPulsa : untuk melihat sisa pulsa.
- Method addContact : menambahkan parameter berupa nama dan nomor yang berguna untuk menambah object baru pada ArrayList contact.
- Method showContact : menampilkan semua kontak yang ada pada HP.

- Method findContact : untuk mencari parameter nama yang sesuai dan menampilkan nya berupa nama dan nomor.