

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Overriding.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik19\_Override > Pr01 > Overriding

Project Commit Pull Requests Bookmarks Structure

Project Aa\_Soru Pr01\_Calisan.java Pr02\_Yonetici.java Pr03\_Runner.java Animal.java Dog.java Overriding.java

Notifications Run

Pr04\_Runner.java

```
* 11)Static method'lar overriding edilemezlerrrr.  
* 12)Private method'lar overriding edilemezlerrrr. -->neden : cunku private  
* 13)Final method'lar overriding edilemezlerrrr. -->neden : final: son hali artik degistirelemezzi de ondan.  
*  
* 14)"Polymorphism" BUZZZ gibi intevview....-->"overloading" ve "overriding" den olusan yapisiya denir.  
*  
* "overloading"--> public void yemek(){...}  
* public void yemek(String totli){...}  
* public void yemek(String totli , int ucret){...}  
  
* "overriding"--> public void icmek(){soso(gazoz)}  
* public void icmek(){soso(dark ve sek bir kahve)}  
* public void icmek(){soso(ucret)}  
  
* "overloading" ile "overriding" arasindaki farklar :  
1) "overloading" de method signature(name+parametre) degistirilir (parametre degisir)  
"overriding" de method signature(name+parametre) asla degistirilemez  
  
2)"overloading" de inheritance gerekmez  
"overriding" de inheritance olmadan overriding yapilamaz  
  
3)"overloading" de body genellikle degistirilmenden kullanilir  
"overriding" de body hemen hemen her zaman degistirilir  
  
4)Static method'lar overriding edilemezlerrrr, ama overloading edilebilirler  
Private method'lar overriding edilemezlerrrr, ama overloading edilebilirler  
  
5)overloading Compile Time Polymorphism'dir -->static  
overriding Run Time Polymorphism'dir -->dynamik
```

Git Debug TODO Problems Terminal Services Build

Class 'Overriding' is never used 3:14 LF UTF-8 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Animal.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik19\_Override > Pr01 > Animal

Project Commit Pull Requests Bookmarks Structure

Project

Animal.java

Pr04\_Runner.java Aa\_Soru Pr01\_Calisan.java Pr02\_Yonetici.java Pr03\_Runner.java Animal.java Dog.java Overriding.java

Notifications Run

```
1 package JavaKonusalSorular.Pratik19_Override.Pr01;
2
3 public class Animal {
4
5     public void beslenme() {
6
7         System.out.println("tum hayvanlar beslenir..");
8     }
9
10    protected void tatli() {
11
12        System.out.println("trilece");
13    }
14
15    protected String icecek() {
16
17        System.out.println("nigde gazozu");
18        return "ohhh";
19    }
20
21    public Integer topla(){
22
23        return 34+6;
24    }
25
26    public Animal fatih() {
27
28        return new Animal();
29    }
30}
```

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (5 minutes ago) 28:1 LF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Dog.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik19\_Override > Pr01 > Dog

Project Commit Pull Requests Bookmarks Structure

JavaKonusalSorular.Pratik19\_Override.Pr01.Dog.java

```
package JavaKonusalSorular.Pratik19_Override.Pr01;

public class Dog extends Animal {

    @Override //Annotation --> mutlaka childde yazılır parent ve child metodlarında ilişkili kurar
    public void beslenme() {
        System.out.println("kemik ile beslenir");
    }

    @Override
    public void tatli() {
        System.out.println("fistik sarma");
    }

    @Override
    protected String icecek() {
        System.out.println("tursu suyu");
        return "yarasin";
    }

    @Override
    public Integer topla() {
        return 41+54;
    }

    @Override
    public Dog fatih() {
        return new Dog();
    }
}
```

Notifications Run

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (6 minutes ago) 33:5 LF UTF-8 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Canli.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik19\_Override > Pr02 > Canli > setAgirlik

Project Commit Pull Requests Bookmarks Structure

Project Aa\_Soru X Pr01\_Calisan.java X Pr02\_Yonetici.java X Pr03\_Runner.java X Animal.java X Dog.java X Bitki.java X Canli.java X Overriding.java X

Notifications Run

```
1 package JavaKonusalSorular.Pratik19_Override.Pr02;
2
3 public class Canli {
4     private String isim;
5     private int uzunluk;
6     private int agirlik;
7
8     public Canli(String isim, int uzunluk, int agirlik) {
9
10         this.isim = isim;
11         this.uzunluk = uzunluk;
12         this.agirlik = agirlik;
13     }
14     public void beslenme() {
15         System.out.println("Beslenme methodu calisti.");
16     }
17     public void solunum() {
18         System.out.println("Solunum methodu calisti.");
19     }
20     public String getIsim() {
21         return isim;
22     }
23     public void setIsim(String isim) {
24         this.isim = isim;
25     }
26     public int getUzunluk() {
27         return uzunluk;
28     }
29     public void setUzunluk(int uzunluk) {
30         this.uzunluk = uzunluk;
31     }
32     public int getAgirlik() {
33         return agirlik;
34     }
35     public void setAgirlik(int agirlik) { this.agirlik = agirlik; }
```

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (7 minutes ago) 37:6 LF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Hayvan.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik19\_Override > Pr02 > Hayvan

Project Commit Pull Requests Bookmarks Structure

JavaKonusalSorular.Pratik19\_Override.Pr02

1\_Calisan.java X Pr02\_Yonetici.java X Pr03\_Runner.java X Animal.java X Dog.java X Bitki.java X Canli.java X Hayvan.java X Overriding.java X

Notifications Run

```
1 package JavaKonusalSorular.Pratik19_Override.Pr02;
2
3 public class Hayvan extends Canli {
4     private String cins;
5
6     public Hayvan(String isim, int uzunluk, int agirlik, String cins) {
7         super(isim, uzunluk, agirlik);
8         this.cins=cins;
9     }
10    @Override
11    public void beslenme() {
12        System.out.println("Hayvan sinifinda beslenme methodu calisti.");
13    }
14    @Override
15    public void solunum() {
16        System.out.println("Hayvan sinifinda solunum methodu calisti.");
17    }
18    public void kos() {
19        System.out.println("Hayvan sinifinda kos methodu calisti.");
20    }
21
22    public String getCins() {
23        return cins;
24    }
25
26    public void setCins(String cins) {
27        this.cins = cins;
28    }
29
30
31
32
33
34
35
```

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (7 minutes ago)

33:5 LF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Bitki.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik19\_Override > Pr02 > Bitki

Project Commit Pull Requests Bookmarks Structure

Project 1\_Calisan.java × Pr02\_Yonetici.java × Pr03\_Runner.java × Animal.java × Dog.java × Bitki.java × Canli.java × Hayvan.java × Overriding.java ×

Notifications Run

```
1 package JavaKonusalSorular.Pratik19_Override.Pr02;
2
3 public class Bitki extends Canli {
4     private String renk;
5
6     public Bitki(String isim, int uzunluk, int agirlik, String renk) {
7         super(isim, uzunluk, agirlik);
8         this.renk=renk;
9     }
10
11    public void solunum() {
12        System.out.println("Bitki fotosentez yapar.");
13    }
14
15    @Override
16    public void beslenme() {
17        System.out.println("Bitki besleniyor.");
18    }
19    public String getRenk() {
20        return renk;
21    }
22
23    public void setRenk(String renk) {
24        this.renk = renk;
25    }
26
27
28 }
```

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (8 minutes ago) 28:1 LF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Main.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik19\_Override > Pr02 > Main

Project Commit Pull Requests Bookmarks Structure

java Pr03\_Runner.java Animal.java Dog.java Bitki.java Main.java

Main

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\Your Java Agent Path\your-agent.jar" -jar C:\Users\HP\IdeaProjects\Java2021allfiles\target\Java2021allfiles-0.1-jar-with-dependencies.jar

Notifications Run

```
package JavaKonusalSorular.Pratik19_Override.Pr02;

public class Main {

    public static void main(String[] args) {

        Hayvan hayvan = new Hayvan( "Tekir" , 30 , 5 , "Kedi" );
        System.out.println(hayvan.getIsim());
        System.out.println(hayvan.getAgirlik());
        System.out.println(hayvan.getUzunluk());
        System.out.println(hayvan.getCins());

        hayvan.beslenme();
        hayvan.solunum();
        hayvan.kos();

        Bitki bitki = new Bitki( "Gul" , 2 , 1 , "Kirmizi" );

        System.out.println(bitki.getIsim());
        System.out.println(bitki.getAgirlik());
        System.out.println(bitki.getUzunluk());
        System.out.println(bitki.getRenk());

        bitki.beslenme();
        bitki.solunum();
    }
}
```

Tekir  
5  
30  
Kedi  
Hayvan sinifinda beslenme methodu calisti.  
Hayvan sinifinda solunum methodu calisti.  
Hayvan sinifinda kos methodu calisti.  
Gul  
1  
2  
Kirmizi  
Bitki besleniyor.  
Bitki fotosentez yapar.

Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 14 sec, 853 ms (moments ago)

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Personel.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik19\_Override > Pr03 > Personel

Project Commit Pull Requests Bookmarks Structure

Pr03\_Runner.java Animal.java Dog.java Bitki.java Main.java Personel.java Canli.java Hayvan.java Overriding.java

package JavaKonusalSorular.Pratik19\_Override.Pr03;

public class Personel {

public String isim="Emre";

public String soyisim="Avci";

}

Personel

Formen Gecicilsci Isci

Pr04 Pr05 Pr06 Pr07 Pr08 Pr09 Pr10 Pr11 Pr12

Pratik20\_Exceptions Pratik21\_Abstract Pratik22\_Interfcae Pratik23\_Iterator Pratik24\_Set\_HashSet\_Link Pratik25\_Queue\_Degue

Pratik26\_Maps

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 14 sec, 853 ms (a minute ago) 13:1 LF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Isci.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik19\_Override > Pr03 > Isci

Project Commit Pull Requests Bookmarks Structure

Main Git Notifications Run

```
1 package JavaKonusalSorular.Pratik19_Override.Pr03;
2
3 public class Isci extends Personel {
4
5     public String bolum="Kaynak Atolyesi";
6     public int maas=5000;
7     public String isim = "Mesut";
8
9     public int maasHesapla() {
10        return 30*8*15; // 30 gun sayisi, 8 gunluk mesai, 15 saat ucreti
11    }
12
13    public void mesai() {
14        System.out.println("isciler gunluk 8 saat calisir");
15    }
16
17    // overloading : ayni isimde ama farkli method signaturelarina sahip metodlar
18
19    public int maasHesapla(int gunSayisi) {
20
21        return gunSayisi*8*15;
22    }
23
24    public int maasHesapla(int gunlukCalismaSaati,int gunSayisi) {
25
26        return gunSayisi*gunlukCalismaSaati*15;
27    }
28
29    public int maasHesapla(int gunlukCalismaSaati,int gunSayisi, int saatUcreti) {
30
31        return gunlukCalismaSaati*gunSayisi*saatUcreti;
32    }
33
34 }
```

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 14 sec, 853 ms (a minute ago) 33:2 LF UTF-8 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Formen.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik19\_Override > Pr03 > Formen > main

Project Commit Pull Requests Bookmarks Structure

Project

```
1 package JavaKonusalSorular.Pratik19_Override.Pr03;
2
3 public class Formen extends Isci {
4
5     public String sorumluOldBolum ="bakim";
6     public String isim= "Emrullah";
7
8     public static void main(String[] args) {
9
10        // Inheritance da data turu olarak class ismi kullanimi
11
12        // bir class da obje uretirken data turu olugur class in kendisini veya parent larini kullanabiliriz
13        // olusturdugumuz obje ile variable kullanmamız gerekirs hangi degeri alacagini anlamak icin
14        // önce data turu olan class a gideriz orada aradigimiz variable varsa kullanırız,
15        // yoksa parent larina bakarız yukarı doğru gidereken ilk bulduğumuz degeri kullanırız.
16
17        Formen fr1= new Formen ();
18        // fr1 objesini kullanarak hangi class larin variable lari görebilirim
19        fr1.sorumluOldBolum= "Marangozhan";
20        fr1.maas= 100000;
21        System.out.println(fr1.isim + " " + fr1.sorumluOldBolum+" "+ fr1.maas); //Emrullah Marangozhan 100000
22
23        Isci fr2 = new Formen();
24        //Data turu olarak Isci secildigi icin
25        fr2.bolum= "Kaynak atolyesi";
26        //fr2.isim= "Yakup";
27        //System.out.println(fr2.isim + " " + fr2.bolum+" "+ fr2.maas); //Yakup Kaynak atolyesi 5000
28        // bu atamayı kaldırıp class da isim atadiktan sonra
29        System.out.println(fr2.isim + " " + fr2.bolum+" "+ fr2.maas); //Mesut Kaynak atolyesi 5000
30
31        Personel fr3=new Formen();
32        System.out.println(fr3.isim); //Emre
33
34    }
35}
```

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 14 sec, 853 ms (4 minutes ago)

32:45 LF UTF-8 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Gecicilsci.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik19\_Override > Pr03 > Gecicilsci > maasHesapla

Project Commit Pull Requests Bookmarks Structure

Project: Gecicilsci

Run: Gecicilsci

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\Your Java Agent Path\your-agent.jar" -Dfile.encoding=UTF-8 Gecicilsci

2400  
Gecici isçiler haftada 25 saat çalışır  
Process finished with exit code 0

```
1 package JavaKonusalSorular.Pratik19_Override.Pr03;
2
3 public class GeciciIisci extends Isci {
4
5     public String calistigiBolum="Yemekhane";
6
7     public static void main(String[] args) {
8
9         // Overriding (GEÇERSİZ KILMA)
10        // bir child class da parent class dan miras alınan methodu degistirmeye overriding denir
11
12        GeciciIisci gil= new GeciciIisci();
13        System.out.println(gil.maasHesapla()); // 30*8*10=2400
14        gil.mesai(); // isçiler günlük 8 saat çalışır (super den yazdırıldı parent class a giderek)
15    }
16
17    // overriding yapmak için parent class daki method signature ile
18    // child class da bir method oluşturulur.
19    //signature aynı olduğundan sadece body değişir
20    // böylece parent class daki method child class için geçersiz kalır
21    public int maasHesapla() {
22
23        return 30*8*10;
24    }
25
26    @Override // annotation
27    public void mesai() { //isci classında degistirince CTE veriyor
28        // super.mesai();
29        System.out.println("Gecici isçiler haftada 25 saat çalışır");
30        //Gecici isçiler haftada 25 saat çalışır
31    }
32
33}
```

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 16 sec, 911 ms (moments ago)

25:6 LF UTF-8 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Ev.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik19\_Override > Pr04 > Ev

Project Commit Pull Requests Bookmarks Structure

Project Main.java Personel.java Ev.java Is... Run: Ev

```
package JavaKonusalSorular.Pratik19_Override.Pr04;

public class Ev {

    public static void main(String[] args) {
        BuyukDede buyukDede = new BuyukDede(); // ctrl+alt+v
        buyukDede.isim = "Haci Ahmet";
        buyukDede.soyisim = "Hasanoglu";
        buyukDede.yas = 100;
        buyukDede.meslek = "Ciftci";
        buyukDede.tatlisever = true;

        System.out.println(buyukDede);

        Dede dede = new Dede( isim: "Mustafa");
        dede.boy = 170;
        dede.torun = 15;
        dede.baston = false;
        System.out.println("-----");
        System.out.println(dede);
    }
}
```

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2021.2.1\lib\idea\_rt.jar" -Dfile.encoding=UTF-8 JavaKonusalSorular.Pratik19\_Override.Pr04.Ev
BuyukDede{isim='Haci Ahmet', soyisim='Hasanoglu', yas=100, meslek='Ciftci', tatlisever=true}
-----
Dede{boy=170, baston=false, torun=15, isim='Mustafa', soyisim='null', yas=0, meslek='null'}
Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (moments ago) 24:2 LF windows-1254 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - BuyukDede.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik19\_Override > Pr04 > BuyukDede

Project Commit Pull Requests Bookmarks Structure

java Main.java Personnel.java Ev.java BuyukDede.java Isci.java Gecicilsci.java Formen.java Canli.java Hayvan.java

BuyukDede.java

```
1 package JavaKonusalSorular.Pratik19_Override.Pr04;
2
3 public class BuyukDede {
4     String isim;
5     String soyisim;
6     int yas;
7     String meslek;
8     boolean tatlidever;
9
10    public BuyukDede() {
11    }
12
13    public BuyukDede(String isim) { this.isim = isim; }
14
15    @Override
16    public String toString() {
17        return "BuyukDede{" +
18            "isim='" + isim + '\'' +
19            ", soyisim='" + soyisim + '\'' +
20            ", yas=" + yas +
21            ", meslek='" + meslek + '\'' +
22            ", tatlidever=" + tatlidever +
23            '}';
24
25    }
26
27
28}
29
```

Git: Ev Run Notifications

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Baba.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik19\_Override > Pr04 > Baba

Project Commit Pull Requests Bookmarks Structure

Project Main.java Personnel.java Ev.java BuyukDede.java Baba.java Isci.java Gecicilisci.java Formen.java Hayvan.java

Notifications Run

```
1 package JavaKonusalSorular.Pratik19_Override.Pr04;
2
3 public class Baba extends Dede {
4
5     boolean araba;
6
7     public Baba() {
8
9    }
10
11    public Baba(String isim) {
12        super(isim);
13    }
14
15    @Override
16    public String toString() {
17        return "Baba{" +
18            "araba=" + araba +
19            ", boy=" + boy +
20            ", torun=" + torun +
21            ", isim='" + isim + '\'' +
22            ", soyisim='" + soyisim + '\'' +
23            ", yas=" + yas +
24            ", meslek='" + meslek + '\'' +
25            ", tatlisiever=" + tatlisiever +
26            '}';
27    }
28}
29
```

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (a minute ago)

29:1 LF windows-1254 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Dede.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik19\_Override > Pr04 > Dede

Project Commit Pull Requests Bookmarks Structure

tki.java X Main.java X Personel.java X Ev.java X BuyukDede.java X Baba.java X Dede.java X Isci.java X Gecicilisci.java X Formen.java X

Notifications Run

```
1 package JavaKonusalSorular.Pratik19_Override.Pr04;
2
3 public class Dede extends BuyukDede {
4
5     int boy;
6     boolean baston;
7     int torun;
8
9     public Dede() {
10
11 }
12
13     public Dede(String isim) { super(isim); }
14
15     @Override
16     public String toString() {
17         return "Dede{" +
18             "boy=" + boy +
19             ", baston=" + baston +
20             ", torun=" + torun +
21             ", isim='" + isim + '\'' +
22             ", soyisim='" + soyisim + '\'' +
23             ", yas=" + yas +
24             ", meslek='" + meslek + '\'' +
25             '}';
26
27     }
28
29 }
30 }
```

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (a minute ago) 30:1 LF windows-1254 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Cocuk.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik19\_Override > Pr04 > Cocuk

Project Commit Pull Requests Bookmarks Structure

Project Personel.java Ev.java BuyukDede.java Baba.java Dede.java Cocuk.java Isci.java Gecicilsci.java Formen.java

Notifications Run

```
1 package JavaKonusalSorular.Pratik19_Override.Pr04;
2
3 public class Cocuk extends Baba {
4     boolean bisiklet;
5
6     public Cocuk() {
7
8     }
9
10    public Cocuk(String isim) {
11        super(isim);
12
13    }
14
15    @Override
16    public String toString() {
17        return "Cocuk{" +
18            "bisiklet=" + bisiklet +
19            ", boy=" + boy +
20            ", isim='" + isim + '\'' +
21            ", soyisim='" + soyisim + '\'' +
22            ", yas=" + yas +
23            '}';
24
25    }
26}
```

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (2 minutes ago) 26:1 LF windows-1254 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Arac.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik19\_Override > Pr05 > Arac

Project Commit Pull Requests Bookmarks Structure

Arac.java

```
package JavaKonusalSorular.Pratik19_Override.Pr05;

public class Arac {
    // 1- Arac isimli bir superclass olusturunuz, fields : renk, motor(private), model(protected) olsun.
    // 2- Constructor ekleyiniz.get ve set metodlari ve toString Metodunu ekleyiniz.
    // 3- Bu siniftan Otobus sinifini uretiniz, otobusun aynice yolcuSayisi field ini ekleyiniz.
    // 4- Bir AracPark isimli main olan bir sinif olusturunuz ve Otobus ten
    // obj olusturarak, Otobusun ozelliklerinin tumunu ekrana yazdiriniz.

    private String renk;
    private int motor;
    protected String model;

    public Arac(String renk, int motor, String model) {
        setRenk(renk);
        setMotor(motor);
        setModel(model);
    }

    public String getRenk() {
        return renk;
    }

    public void setRenk(String renk) {
        this.renk = renk;
    }

    public int getMotor() {
        return motor;
    }

    public void setMotor(int motor) {
        this.motor = motor;
    }

    public String getModel() {
        return model;
    }

    public void setModel(String model) {
        this.model = model;
    }
}
```

Notifications Run

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (3 minutes ago) 35:7 LF UTF-8 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Otobus.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik19\_Override > Pr05 > Otobus

Project Commit Pull Requests Bookmarks Structure

Project Ev Git: 26 Notifications Run

```
1 package JavaKonusalSorular.Pratik19_Override.Pr05;
2
3 public class Otobus extends Arac {
4     int yolcuSayisi;
5
6     public Otobus(String renk, int motor, String model, int yolcuSayisi) {
7         super(renk, motor, model);
8         this.yolcuSayisi = yolcuSayisi;
9     }
10
11     @Override
12     public String toString() {
13         return "Otobus{" +
14             "renk='" + getRenk() + '\'' + //renk değişkeni private olduğú için direk erişilemez
15             ", motor=" + getMotor() + //motor değişkeni private olduğú için direk erişilemez
16             ", model='" + model + '\'' + //model değişkeni protected olduğú için direk erişilir
17             "yolcuSayisi=" + yolcuSayisi +
18         '}';
19     }
20
21 }
22
23
24
25
26
27 }
28 }
```

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (3 minutes ago) 28:1 LF UTF-8 4 spaces master

The screenshot shows an IDE interface with the following details:

- File Menu:** File, Edit, View, Navigate, Code, Refactor, Build, Run, Tools, Git, Window, Help.
- Title Bar:** Java2021allfiles - AracPark.java [Java2021allfiles]
- Toolbar:** Includes icons for Save, Undo, Redo, Cut, Copy, Paste, Find, and Run.
- Project Explorer:** Shows a tree view of the project structure under "Java2021allfiles". The "Pratik19\_Override" folder is expanded, showing files like Pratik13\_DoWI, Pratik14\_Array, Pratik15\_Array, Pratik16\_Const, Pratik17\_Encap, Pratik18\_Inher, and Pratik19\_Override. The "Pratik19\_Override" folder is selected.
- Code Editor:** The active file is `AracPark.java`. The code contains a main method that creates an `Otobus` object and prints its details using `toString()`.

```
package JavaKonusalSorular.Pratik19_Override.Pr05;
public class AracPark {
    public static void main(String[] args) {
        Otobus otobus1 = new Otobus( renk: "beyaz", motor: 3000, model: "toyota", yolcuSayisi: 35);
        System.out.println("otobus1 = " + otobus1); //burada otomatik toString çağırılır.
    }
}
```

- Run Tab:** Shows the command used to run the application: `C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe -javaagent:C:\Program Files\`. The output shows: `otobus1 = Otobus{renk='beyaz', motor=3000, model='toyota', yolcuSayisi=35}` and `Process finished with exit code 0`.
- Bottom Status Bar:** Shows "Build completed successfully in 27 sec, 693 ms (moments ago)" and "12:1 LF UTF-8 4 spaces master".

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr00.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr00

file x Pr00.java x

Project Commit Pull Requests Bookmarks Structure Notifications

```
1 package JavaKonusalSorular.Pratik20_Exceptions;
2
3 public class Pr00 {
4     /*
5      * EXCEPTIONS
6      * İki tür exceptions vardır.
7      * 1- Compile Time (checked) Exceptions :
8      * Kod yazıldığında Java'nın öngördüğü olası sorunlardır. Olası bir problemde altını kırmızı şizer,
9      * fakat her kırmızı gizli exceptions değildir. "Compile Time Exception" larda ya "throws" veya "try-catch" kullanılmamalı handle edilmeli yoksa
10         code çalışmaz.
11
12 2-RUN Time (unchecked) Exceptions :
13 Kod çalıştırıldığında ortaya çıkan exceptions'lardır. "Run Time Exception" larda "throws", "try-catch", veya hiçbir kullanılmayabilir handle edilmeyebilir..
14
15
16
17 3) Code create edilirken Exception kullanmak zorunda kalınırsa :
18     a) Add throws declaration ==> Problem oluşturduğunda console'a teknik mesajlar içeren hata mesajı verir.
19
20     b) try-catch block ==> Problem oluşturduğunda hatanın yazılmasına veya handle imkânı verir.
21
22 4) try block'dan sonra catch block en az bir tane olmalıdır, aksi takdirde CTE verir.
23
24 5) try-catch bloğunda try body kod hatasız çalışırsa catch body çalışmaz. catch body try body deki
25     exception da çalışır..
26
27 6) try body 'dan sonra 1 veya daha fazla catch body create edilebilir. Oluşan Exception hangi catch body ile ilişkili ise
28     o catch body çalışır. Aynı anda sadece bir catch body çalışabilir.
29
30 7) Tek try body Aralarında parent-child ilişkisi olan ve (multiply catch) birden fazla catch body kullanırsa
31     Once child catch body yazılmalı. Aksi takdirde( once parent body yazılırsa) child'a is kalma yazılmalıdır,
32
33     kod için Java erişilemez catch-blogu-> Compile Time Error verir.
34     catch body'lerde Parent Child ilişkisi yoksa sıralama onemli degildir.
35 }
```

Git Debug TODO Problems Terminal Services Build

Class 'Pr00' is never used 3:14 LF UTF-8 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr00.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr00

file x Pr00.java x

Project Commit Pull Requests Bookmarks Structure

Notifications

```
35
36 1) ArithmeticException class'i Java'da matematiksel islemler yapilirken olusabilecek hatalarda kullanilir.
37 Mesela; 12'yi 0'a bolersek Java Exception throw eder. Bu Exception ArithmeticException kullanilarak halledilebilir.
38 Run Time Exception'dir.
39
40 Note: "Compile Time Exception" larda ya "throws" veya "try-catch" kullanilmali aksi takdirde
41 code calismaz. Ama "Run Time Exception" larda isterseniz "throws", isterseniz "try-catch", isterseniz
42 hicbir sey kullanmayabilirsiniz. "Compile Time Exception" lar "handle" edilmelidirler ama
43 "Run Time Exception" lar handle edilmeyebilir zorunlu degil.
44
45 2) NullPointerException class'i ornegin null atamasi yapan bir String'de length() methodu kullanildiginda
46 olusur. Run Time Exception'dir.
47
48 3) ArrayIndexOutOfBoundsException class'i array'lerde olmayan bir index ile islem yapmaya calisirsak devreye girer.
49 Run Time Exception'dir.
50
51 4) NumberFormatException class'i sayi formatinda olmayan bir String'i parseInt() methodu kullanarak integer'a cevirmek
52 istediginizde devreye girer. Run Time Exception'dir.
53
54 5) ClassCastException class'i birbirine donusturulemeyen data type'lar birbirine donusturulmek istenirse devreye girer.
55 Ornegin; Object data type'i String data type'ina donusturulemez. Java'ya illa donustur diye israr edersek ClassCastException aliriz
56 Run Time Exception'dir.
57
58 6) IllegalArgumentException class'i kullanilmasini istemedigimiz degerlerde programimizin hata vermesini istiyorsak
59 devreye girer. Mesela; yas icin negatif sayilarin kullanilmasi dogru degildir. Kullanici yas icin negatif sayi kullandiginda
60 program hata vermelidir. Bunu throw new IllegalArgumentException code'unu yazarak temin edebiiz.
61 Run Time Exception'dir.
62
63 Soru : "throw" ile "throws" arasindaki farklar nelerdir?
64 a) throws main method parantezin kapanis parantezi ile method body'nin acilis parantezi arasinda kullanilir.
65 "throw" method body'nin icinde kullanilir.
66 b) "throws" keywordunden sonra birden fazla Exception yazilabilir. Fakat "throw" keywordundan sonra
67 sadece bir tanesi Exception yazilabilir.
68 c) "throws" keywordunden sonra sadece Exception class'inin ismini yazariz fakat "throw" keywordunden sonra
69 Exception class'inden object olustururuz.
70 d) "throws" keywordu methodun ilk satirinda sadece bir kere kullanilmalidir ama "throw" keywordu method hodusu
```

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 27 sec, 693 ms (3 minutes ago)

44:1 LF UTF-8 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr00.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr00

file x Pr00.java x

Project Commit Pull Requests Bookmarks Structure

Notifications

67        sadece bir tane Exception yazılabilir.

68        c) "throws" keywordundan sonra sadece Exception class'ının ismini yazarız fakat "throw" keywordundan sonra Exception class'ından object oluştururuz.

69        d) "throws" keywordu methodun ilk satırında sadece bir kere kullanılabilir ama "throw" keywordu method body'si içinde nerede Exception atmak istersek orada istedigimiz kadar kullanabiliriz.

70

71

72        Note: catch block'lardan sonra finally block kullanılabilir, finally block'in ozelligi Exception olusmasada çalışmasıdır.

73        finally block cloud'da yapılan işlemlerden sonra cloud ile connection'i kesmek için kullanılır. Cloud ile connection yazdigimiz kod başarılı bir şekilde çalışırsa isimiz bittiği için kesilmelidir. Yazdigimiz code Exception atarsa cloud ile connection yine kesilmeli ve code tamir edilmelidir. Cloud ile connection kesilmez ise fatura pahali olabilir.

74

75

76

77

78

79

80        1) Garbage Collector sürekli memory'i kontrol eder. Silinmesi gereken herhangi bir data varsa

81        memory'i temiz tutmak için o data'yı siler. Ama data'yı silmeden önce "finalize" eder.

82        Finalize etmek için finalize() methodunu kullanır. Bu method'un ne zaman çalışacağına Java

83        karar verir. Siz code yazarken isterseniz finalize() methodunu çağrılabilsiniz ama siz çağrısanız da

84        ne zaman çalışacağına Java karar verir.

85

86        AHAN DA Interview sorusu : "final", "finally", "finalize" nedir?

87        final(keyword): ==> final method override edilemez.

88        final variable değeri değiştirilemez.

89        final class child class sahibi olamaz.

90        finally(code block) ==> try-catch block'dan sonra kullanılır ve Exception atılsa da atılmasa da çalışır.

91

92        finalize(method) ==> Garbage Collector bir data'yı imha etmeden önce çalıştırır.

93

94        \*/

95 }

96

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 27 sec, 693 ms (3 minutes ago)

44:1 LF UTF-8 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr01.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr01

Project Commit Pull Requests Bookmarks Structure

file x Pr00.java x Pr01.java x Run: Pr01 x

```
1 package JavaKonusalSorular.Pratik20_Exceptions;
2
3 import java.util.Scanner;
4
5 public class Pr01 {
6
7     public static void main(String[] args) {
8
9         // Kullaniciidan alacagini 2 tam sayinin bolumunu yazdiriniz.
10
11        Scanner scan=new Scanner(System.in);
12
13        System.out.println("Lutfen iki sayı giriniz : ");
14
15        int sayi1=scan.nextInt();
16        int sayi2=scan.nextInt();
17
18        try {
19            System.out.println("Bolum : " + (sayi1/sayi2));
20        }catch (ArithmaticException e) {
21            System.out.println("Bolme isleminde bolen 0 olamaz");
22        }
23        scan.close();
24
25    }
26
27}
28
```

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\Java\Visual Studio Code\lib\ext\jscoverage-3.7.0.jar" -Dfile.encoding=UTF-8 C:\Users\HP\OneDrive\Yüklenen Dosya\Java2021allfiles\src\JavaKonusalSorular\Pratik20\_Exceptions\Pr01 Lutfen iki sayı giriniz : 2 0 Bolme isleminde bolen 0 olamaz Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 20 sec, 533 ms (moments ago)

8:1 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr02.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr02 > main

Project Commit Pull Requests Bookmarks Structure

file Pr00.java Pr01.java Pr02.java

Run: Pr02

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files

Lutfen iki sayı giriniz :  
25  
5  
Bolum : 5  
Lutfen iki sayı giriniz :  
25  
0  
Bolme isleminde bolen 0 olamaz / by zero  
Lutfen iki sayı giriniz :  
java.lang.ArithmetricException Create breakpoint : / by zero  
at JavaKonusalSorular.Pratik20\_Exceptions.Pr02.main(Pr02.java:20)

```
package JavaKonusalSorular.Pratik20_Exceptions;

import java.util.Scanner;

public class Pr02 {

    public static void main(String[] args) {
        // Kullanicidan alacagini 2 tam sayinin bolumunu while ile yazdiriniz.

        Scanner scan=new Scanner(System.in);
        int count=1;
        while (count<=34) { // 34 kere dongu yap demektir...

            System.out.println("Lutfen iki sayı giriniz : ");

            int sayi1=scan.nextInt();
            int sayi2=scan.nextInt();

            try {
                System.out.println("Bolum : " + (sayi1/sayi2));
            }catch (ArithmetricException e) {
                System.out.println("Bolme isleminde bolen 0 olamaz");
                // hatanin kisa mesaji icin bilgi mesaji soyle yazdirilir.
                System.out.println(e.getMessage());
                // arizanin herseyini yazdirir gormemizi saglar..
                e.printStackTrace();
            }

            count++;
        }
        scan.close();
    }
}
```

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (a minute ago) 14:1 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr03.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr03 > main

Project Commit Pull Requests Bookmarks Structure

file x Pr00.java x Pr01.java x Pr02.java x Pr03.java x Run: Pr02 x Pr03 x

1 package JavaKonusalSorular.Pratik20\_Exceptions;  
2  
3 import ...  
4  
5 public class Pr03 {  
6  
7 public static void main(String[] args) {  
8  
9 try { // file yani bizdeki denemenin yerini getiriyor  
10 FileInputStream fis = new  
11 FileInputStream ( name: "C:\\\\Users\\\\TOSHIBA-PC\\\\eclipse-workspace" +  
12 "\\\\java2021Summer Tr\\\\src\\\\day41\_Exceptions\\\\Deneme");  
13 int i=0;  
14 try {  
15 while ((i=fis.read())!=-1) {  
16 System.out.print((char)(i));  
17 }  
18 } catch (IOException e) { // IO ; I INPUT O OUTPUT  
19 e.printStackTrace(); // hatanin tum zerrelerini getirir.  
20 }  
21 catch (FileNotFoundException e) {  
22 // e.printStackTrace();  
23 System.out.println(e.getMessage());  
24 }  
25 System.out.println("");  
26 System.out.println("devamkee yazisi varsa problem yok");  
27 }  
28 }  
29 }  
30 }  
31 }  
32 }  
33 }  
34 }  
35 }  
36 }

C:\Users\HP.jdk\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2021.2.1\lib\idea\_rt.jar" -Dfile.encoding=UTF-8 C:\Users\TOSHIBA-PC\eclipse-workspace\java2021Summer Tr\src\day41\_Exceptions\Deneme (Sistem bekleme)

devamkee yazisi varsa problem yok

Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 15 sec, 238 ms (moments ago) 30:32 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr05.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr05 > main

Project Commit Pull Requests Bookmarks Structure

Pr00.java × Pr01.java × Pr02.java × Pr03.java × Pr04.java × Pr05.java ×

Run: Pr02 × Pr05 ×

1 package JavaKonusalSorular.Pratik20\_Exceptions;  
2  
3 import ...  
4  
5 public class Pr05 {  
6  
7 public static void main(String[] args) {  
8  
9 /\*  
10 \*  
11 \* Eger handle edilecek exceptions' lar arasında parent-child ilişkisi varsa  
12 \* parent class exceptions' ucreat edilip child class exception' u olmadan da  
13 \* kod calisir ancak; Olumlu durum : Tek catch body ile tum exceptions handle  
14 \* edilebilir Olumsuz durum : Bir hata durumunda hatanin turu vd verileri vs.  
15 \* uylaslamayacagi icin handle edilme imkani olmaz.  
16 \*/  
17  
18 try {  
19  
20 FileInputStream fis = new FileInputStream(  
21 name: "C:\\\\Users\\\\TOSHIBA-PC\\\\eclipse-workspace" +  
22 "\\\\java2021Summer Tr\\\\src\\\\day41\_Exceptions\\\\Deneme");  
23  
24 fis.close(); // fis objesi close edildi  
25  
26 int i = 0;  
27  
28 while ((i = fis.read()) != -1) {  
29 System.out.print((char) (i));  
30 }  
31 }  
32 catch (Exception e) {  
33 e.printStackTrace();  
34 }  
35 }  
36 }

C:\Users\HP.jdk\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2021.2.1\lib\idea\_rt.jar" -Dfile.encoding=UTF-8 C:\Users\TOSHIBA-PC\eclipse-workspace\java2021Summer Tr\src\day41\_Exceptions\Deneme

Devamkeee yazisini okuduysan kod bu satira kadar sorunsuz run olmustur...

Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 12 sec, 809 ms (2 minutes ago)

34:14 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr05.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr05 > main

Project Commit Pull Requests Bookmarks Structure

file Pr00.java Pr01.java Pr02.java Pr03.java Pr04.java Pr05.java

Run: Pr02 Pr05

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Pro C:\Users\TOSHIBA-PC\eclipse-workspace\java2021Summer Tr\src\day41\_Exceptions\Deneme");  
fis.close(); // fis objesi close edildi  
int i = 0;  
while ((i = fis.read()) != -1) {  
 System.out.print((char) (i));  
}  
catch (IOException e) { // I : input, O : output  
 // e.printStackTrace(); // daha çok kullanılır, çünkü hatanın tüm verisini  
 // verir,  
 // handle kolaylığı sağlar  
 System.out.println(e.getMessage()); // hata mesajını yazdırır  
}  
System.out.println();  
System.out.println("Devamkeee yazısını okuduysan kod bu satıra kadar sorunsuz run olmustur...");  
}

Notifications Run

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 12 sec, 809 ms (3 minutes ago) 34:14 CRLF windows-1254 Tab\* master

The screenshot shows an IDE interface with the following details:

- File Bar:** File, Edit, View, Navigate, Code, Refactor, Build, Run, Tools, Git, Window, Help.
- Project Bar:** Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr06 > main.
- Code Editor:** The current file is Pr06.java, containing the following code:

```
package JavaKonusalSorular.Pratik20_Exceptions;
public class Pr06 {
    public static void main(String[] args) {
        String str1=" " " space denir
        String str2=""// "" hiclik denir
        String str3=null;
        // str3 variable'nin hic bir degere esit olamdigini belirten bir pointer(belirteci -isaretci)
        // null bir deger degildir ama konsola yazdirilabilir

        System.out.println(str1.length());//1

        System.out.println(str2.length());//0

        // System.out.println(str3.length());
        // NullPointerException unchecked:kendimiz ettik kendimiz bulduk hatali

        System.out.println(str3+" erol tas"); //null erol tas

        // System.out.println(str3.concat("erol tas"));
        // null olarak atanan bir obj uygun olmayan bir islem yapilirsa
        // java NullPointerException unchecked verir
    }
}
```
- Run Tab:** Shows the command used to run the program: C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Pro...". The output shows:

```
1
0
null erol tas
Process finished with exit code 0
```
- Side Panels:** Project, Commit, Pull Requests, Bookmarks, Structure.
- Bottom Bar:** Git, Debug, TODO, Problems, Terminal, Services, Build.
- Status Bar:** Typo: In word 'denir' at the bottom left. At the bottom right, it shows 7:43, CRLF, windows-1254, Tab\*, master.

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr07.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr07

Project Commit Pull Requests Bookmarks Structure

Pr02.java × Pr03.java × Pr04.java × Pr05.java × Pr06.java × Pr07.java ×

Run: Pr07 ×

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\JetB...  
2  
4  
firat  
merve  
Exception in thread "main" java.lang.IndexOutOfBoundsException Create breakpoint : I  
at java.base/java.util.Objects.checkIndex(Objects.java:359)  
at java.base/java.util.ArrayList.get(ArrayList.java:427)  
at JavaKonusalSorular.Pratik20\_Exceptions.Pr07.main(Pr07.java:21)

Process finished with exit code 1

```
1 package JavaKonusalSorular.Pratik20_Exceptions;
2
3 import ...
4
5
6
7 public class Pr07 {
8
9     public static void main(String[] args) {
10
11         int[] arr = { 1, 2, 3, 4 };
12
13         System.out.println(arr[1]);//2
14         System.out.println(arr[3]);//4
15         //System.out.println(arr[5]);//ArrayIndexOutOfBoundsException unchecked
16
17         List<String> gzlinsn= new ArrayList<>(Arrays.asList("merve","hakan","firat"));
18
19         System.out.println(gzlinsn.get(2));//
20         System.out.println(gzlinsn.get(0));//
21         System.out.println(gzlinsn.get(5));//IndexOutOfBoundsException unchecked
22
23         //Array ve list'lerde olmayan bie index ile islem yapilirsa
24         //java IndexOutOfBoundsException unchecked hatasi verir.
25     }
26 }
```

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 32 sec, 569 ms (moments ago) 26:2 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr09.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr09 > main

Project Commit Pull Requests Bookmarks Structure

04.java x Pr05.java x Pr06.java x Pr07.java x Pr08.java x Pr09.java x Run: Pr09 x

```
1 package JavaKonusalSorular.Pratik20_Exceptions;
2
3 import java.util.Scanner;
4
5 public class Pr09 {
6
7     public static void main(String[] args) {
8         /*
9          * Kullaniciidan carpma yapmak icin bir String isteyin. Kullanicinin girdigi
10         * String sadece sayilardan olusuyorsa sayiyi 2 ile carpip sonucu yazdirin.
11         * Kullanici sayilardan olusmayan bir String girerse
12         * "Girdiginiz String sayiya ceviremez" yazdirin.--> hata firlatin...
13         */
14
15         Scanner scanner = new Scanner(System.in);
16         System.out.print("sayi giriniz: ");
17         String str = scanner.nextLine();
18
19         // NumberFormatException
20         try {
21             System.out.println(2 * Integer.parseInt(str));
22         } catch (NumberFormatException e) {
23             System.out.println("Girdiginiz String sayiya ceviremez");
24         }
25         scanner.close();
26
27
28     }
29
30 }
```

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\JetB sayi giriniz: 25  
50  
Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (moments ago)

6:1 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr11.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr11

Pr06.java X Pr07.java X Pr08.java X Pr09.java X Pr10.java X Pr11.java X ... Run: Pr11 X

Project Commit Pull Requests Bookmarks Structure

Notifications Run

```
1 package JavaKonusalSorular.Pratik20_Exceptions;
2
3 import ...
4
5
6 public class Pr11 {
7
8     public static void main(String[] args) {
9
10         try {
11             FileInputStream fis = new FileInputStream
12                 ( name: "C:\\Users\\TOSHIBA-PC\\eclipse-workspace\\java2021Summer " +
13                   "Tr\\src\\day42_Exceptions02\\file");
14         } catch (FileNotFoundException e) {
15             //e.printStackTrace(); // tum hatayi acikca yazar
16             System.out.println(e.getMessage()); // hatayi kisa sekilde yazar
17         }
18         System.out.println("kod bloke olmamis");
19
20     }
21
22 }
23
24 }
25
```

Run: C:\Users\HP\jdk\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA C:\Users\TOSHIBA-PC\workspace\java2021Summer Tr\src\day42\_Exceptions02\file (Sistem belirtti kod bloke olmamis)

Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (moments ago) 25:1 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr13.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr13

Project Commit Pull Requests Bookmarks Structure

Pr08.java x Pr09.java x Pr10.java x Pr11.java x Pr12.java x Pr13.java x Run: Pr13 x

Notifications Run

```
1 package JavaKonusalSorular.Pratik20_Exceptions;
2 import ...
3 public class Pr13 {
4
5     public static void main(String[] args) {
6
7         // icice try yerine tek try birkac catch ile yapabiliyoruz.
8         // child parente dikkat etmek lazim...
9         // yer degistirmek gerekebilir..
10        // Yapilmasi gereken ;
11        // parantez icindeki iki hata ismini yer degistirecegiz...
12        // FileNotFoundException ile IOExceptions yer degistirmeli
13
14
15        try {
16            FileInputStream fis = new FileInputStream(
17                name: "C:\\Users\\TOSHIBA-PC\\eclipse-workspace\\java2021Summer " +
18                "Tr\\src\\day42_Exceptions02\\file");
19
20            int k = 0;
21            while ((k = fis.read()) != -1) {
22                System.out.print((char) k);
23            }
24        } catch (FileNotFoundException e) {
25            // dosyalrla ilgili okuma ve yazma sorunlarini handle eder...
26            e.printStackTrace();
27
28        } catch ( IOException e) {
29            System.out.println(e.getMessage());
30
31        System.out.println("");
32        System.out.println("kod bloke olmamis");
33    }
34
35}
```

C:\Users\HP.jdk\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\J
java.io.FileNotFoundException Create breakpoint : C:\Users\TOSHIBA-PC\eclipse-wor
at java.base/java.io.FileInputStream.open0(Native Method)
at java.base/java.io.FileInputStream.open(FileInputStream.java:216)
at java.base/java.io.FileInputStream.<init>(FileInputStream.java:157)
at java.base/java.io.FileInputStream.<init>(FileInputStream.java:111)
at JavaKonusalSorular.Pratik20\_Exceptions.Pr13.main(Pr13.java:17)

kod bloke olmamis

Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 11 sec, 764 ms (moments ago) 34:2 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr15.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr15 > main

Project Commit Pull Requests Bookmarks Structure

Pr10.java × Pr11.java × Pr12.java × Pr13.java × Pr14.java × Pr15.java ×

Run: Pr15 ×

Notifications Run

```
1 package JavaKonusalSorular.Pratik20_Exceptions;
2
3 public class Pr15 {
4
5     public static void main(String[] args) {
6
7         String str1="";
8         String str2="";
9         String str3=null;
10
11        System.out.println(str1.length()); // 1
12        System.out.println(str2.length()); // 0
13        System.out.println(str3.length()); // NullPointerException
14
15        // Null olarak tanimlanmis obje ile hicbir method calismaz...
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35    }
```

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\J...  
1  
0  
Exception in thread "main" java.lang.NullPointerException Create breakpoint : Can  
at JavaKonusalSorular.Pratik20\_Exceptions.Pr15.main(Pr15.java:13)  
Process finished with exit code 1

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (moments ago) 24:9 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr16.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr16

Project Commit Pull Requests Bookmarks Structure

Pr11.java Pr12.java Pr13.java Pr14.java Pr15.java Pr16.java

Run: Pr16

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2021.3.1\lib\idea\_rt.jar" -Dfile.encoding=UTF-8 -jar C:\Users\HP\IdeaProjects\Java2021allfiles\target\classes.jar

1 5 2 6 [Bahattin, Kazim, Celil]  
Kazim  
Exception in thread "main" java.lang.IndexOutOfBoundsException Create breakpoint  
at java.base/java.util.Objects.checkIndex(Objects.java:359)  
at java.base/java.util.ArrayList.get(ArrayList.java:427)  
at JavaKonusalSorular.Pratik20\_Exceptions.Pr16.main(Pr16.java:25)

Process finished with exit code 1

```
1 package JavaKonusalSorular.Pratik20_Exceptions;
2
3 import ...
4
5
6 public class Pr16 {
7
8     public static void main(String[] args) {
9
10         int arr []= {1,2,5,6};
11
12         System.out.println(arr[1]); // 2 indexlerini soruyoruz...
13         System.out.println(arr[3]); // 6 indexlerini soruyoruz...
14         // System.out.println(arr[5]); // ArrayIndexOutOfBoundsException verir...
15
16         List<String> list = new ArrayList<>();
17
18         list.add("Bahattin");
19         list.add("Kazim");
20         list.add("Celil");
21
22         System.out.println(list); // [Bahattin, Kazim, Celil]
23         System.out.println(list.get(1)); // Kazim
24         System.out.println(list.get(3)); // IndexOutOfBoundsException
25
26     }
27
28
29 }
30
```

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (moments ago) 30:1 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr17.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr17

Project Commit Pull Requests Bookmarks Structure

Pr12.java x Pr13.java x Pr14.java x Pr15.java x Pr16.java x Pr17.java x

Run: Pr17 x

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\J...  
12345610  
123466  
Exception in thread "main" java.lang.ClassCastException Create breakpoint : class  
at JavaKonusalSorular.Pratik20\_Exceptions.Pr17.main(Pr17.java:23)  
Process finished with exit code 1

```
1 package JavaKonusalSorular.Pratik20_Exceptions;
2
3 public class Pr17 {
4
5     public static void main(String[] args) {
6
7         int sayi=10;
8         // String str=sayi; // CTE bu exception degildir...
9
10        String str="123456";
11
12        System.out.println(str+10); // 12345610 diye yazdirir...concat yapti...
13
14        int strSayi=Integer.parseInt(str);
15
16        System.out.println(strSayi+10); // 123466 toplama yapmis oldu parse methoduyla
17
18        String str2= "123a45";
19        // System.out.println(Integer.parseInt(str2)); // NumberFormatException verir...
20        // Arada a harfi oldugu icin formata uygun olmadigini soyle...
21
22        Object sayi2=40;
23        String sayiStr=(String) sayi2; // Explicit narrowing casting oldu
24        // ClassCastException verir...
25
26    }
27
28 }
29
```

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (moments ago)

29:1 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr20.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr20

Project Commit Pull Requests Bookmarks Structure

Pr15.java x Pr16.java x Pr17.java x Pr18.java x Pr19.java x Pr20.java x

Run: Pr18 x Pr20 x

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\J...  
Lutfen yasinizi griniz  
35  
Girdiginiz yas : 35  
devam ediyor...  
Process finished with exit code 0

```
package JavaKonusalSorular.Pratik20_Exceptions;  
import java.util.Scanner;  
public class Pr20 {  
  
    public static void main(String[] args) {  
        // Soru: Kullanicidan yasini girmesini isteyin. Kodunuzu kullanici sifirdan  
        // kucuk bir sayi girerse Exception verecek sekilde yazin.  
  
        Scanner scan = new Scanner(System.in);  
        System.out.println("Lutfen yasinizi griniz");  
  
        int yas = scan.nextInt();  
  
        try {  
            if (yas >= 0) {  
                System.out.println("Girdiginiz yas : " + yas);  
            } else {  
                throw new IllegalArgumentException();  
            }  
        } catch (IllegalArgumentException e) {  
            e.printStackTrace();  
        }  
  
        // sart saglanmazsa kod bloke oluyor. kod bloke olmasin istiyorum  
  
        // bunu engellmenin yolu try catch olusturmak...  
  
        System.out.println("devam ediyor...");  
        scan.close();  
    }  
}
```

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (moments ago)

8:1 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr22.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr22

Project Commit Pull Requests Bookmarks Structure

Pr17.java × Pr18.java × Pr19.java × Pr20.java × Pr21.java × Pr22.java ×

Run: Pr18 × Pr22 ×

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\J...  
3  
Ne olursa olsun yazdir...  
Process finished with exit code 0

Notifications Run

```
1 package JavaKonusalSorular.Pratik20_Exceptions;  
2  
3 public class Pr22 {  
4  
5     public static void main(String[] args) {  
6  
7         int arr[] = {1,2,3,4};  
8  
9         try {  
10             System.out.println(arr[2]);  
11         } catch (ArrayIndexOutOfBoundsException e) {  
12             e.printStackTrace();  
13         } finally {  
14             System.out.println("Ne olursa olsun yazdir...");  
15         }  
16  
17         // finally try catch blogu ile calisabilir.. try blogu ile de calisabilir..  
18         // finally block her durumda calisir...  
19  
20     }  
21  
22 }  
23  
24 }
```

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (moments ago)

24:1 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr23.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr23

Project Commit Pull Requests Bookmarks Structure

Pr18.java x Pr19.java x Pr20.java x Pr21.java x Pr22.java x Pr23.java x

Run: Pr18 x Pr23 x

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\J tfa

Process finished with exit code 0

```
1 package JavaKonusalSorular.Pratik20_Exceptions;
2
3 public class Pr23 {
4
5     public static void main(String[] args) {
6         String s="";
7         try {
8             s+="t";
9         }catch (Exception e) {
10            s+="c";
11        } finally {
12            s+="f";
13        }
14        s+="a";
15        System.out.println(s); //tfca
16    }
17 }
18
19
```

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (2 minutes ago)

19:1 CRLF windows-1254 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr24.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr24 > exceptions

Project Commit Pull Requests Bookmarks Structure

Pr18.java × Pr19.java × Pr20.java × Pr21.java × Pr22.java × Pr23.java × Pr24.java × Run: Pr18 × Pr24 ×

```
package JavaKonusalSorular.Pratik20_Exceptions;
public class Pr24 {
    public static void main(String[] args) { // 1. adim
        System.out.println(exceptions()); // 2. adim
        //acde yazdirir
    }

    public static String exceptions() { //3. adim
        String result = ""; // 4. adim
        String v = null; // 5. adim
        try {
            try {
                result = result + "a"; //a // 6.adim
                v.length(); // NullPointer Exception sonrasi calismaz // 7. adim
                result = result + "b";
            } catch (NullPointerException e) { //8.adim
                result = result + "c"; //ac //9.adim
            } finally {
                result = result + "d"; //acd //10.adim
                throw new Exception(); //11.adim exception verir
            }
        } catch (Exception e) { // 12.adim exception yakalar
            result = result + "e"; // acde //13.adim methodcall a gider //2 ye
        }
        return result;
    }
}
```

Notifications Run

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\...\acde

Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (moments ago)

17:93 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr25\_1.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr25\_1 > main

Project Commit Pull Requests Bookmarks Structure

Pr19.java Pr20.java Pr21.java Pr22.java Pr23.java Pr24.java Pr25\_1.java

Run: Pr18 Pr25\_1

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\ebikgabik\lib\junit-jupiter-engine.jar" email giriniz : @ebikgabik.com basarili

Process finished with exit code 0

Notifications Run

```
1 package JavaKonusalSorular.Pratik20_Exceptions;
2
3 import java.util.Scanner;
4
5 public class Pr25_1 {
6
7     public static void main(String[] args) throws Pr25_2 {
8
9         Scanner scanner = new Scanner(System.in);
10        System.out.print("email giriniz : ");
11
12        String email = scanner.nextLine();
13
14        if (email.contains("@gmail.com") || email.contains("@ebikgabik.com")) {
15            System.out.println("basarili");
16
17        } else {
18            throw new Pr25_2("email adresi uygun degil ...");
19        }
20
21        scanner.close();
22    }
23
24}
```

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 11 sec, 945 ms (a minute ago)

6:1 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr27.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr27

Project Commit Pull Requests Bookmarks Structure

22.java x Pr23.java x Pr24.java x Pr25\_1.java x Pr25\_2.java x Pr26.java x Pr27.java x Run: Pr18 x Pr27 x

Pr27.java

```
package JavaKonusalSorular.Pratik20_Exceptions;
import java.util.Scanner;
public class Pr27 {

    public static void main(String[] args) {

        // kullanidan alınan iki tam sayının bölgümlerini yazdırınız

        int count=1;
        Scanner scan = new Scanner(System.in);

        while(count<=10) {

            System.out.print("bolunen tam sayı giriniz :");
            int sayi1=scan.nextInt();

            System.out.print("bölen tam sayı giriniz :");
            int sayi2=scan.nextInt();

            javaya Exceptions'i (checked-->CTE) handle edilmezse pr (stops execution) uygulamayı durdurur.
            throws an exception (Exceptions fırlatır) handle için problemi gösterir.

            System.out.println("islem no :" + count); //count yazdırıldı
            try{ System.out.println("bolme işleminin sonucu : " + sayi1/sayi2);
            }catch (ArithmetricException e) {

                System.out.println("bölen 0 olamaz..."); //--> Bizim kullanıcıye verdiğimiz mesaj handle
            }
            count++;
        }
    }
}
```

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\...\javaagent.jar" -Dfile.encoding=UTF-8

bolunen tam sayı giriniz :42  
bölen tam sayı giriniz :7  
islem no :1  
bolme işleminin sonucu : 6  
bolunen tam sayı giriniz :25  
bölen tam sayı giriniz :0  
islem no :2  
bölen 0 olamaz...  
bolunen tam sayı giriniz :

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 23 sec, 866 ms (a minute ago)

10:30 LF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr28.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr28 > main

Project Commit Pull Requests Bookmarks Structure

Pr23.java X Pr24.java X Pr25\_1.java X Pr25\_2.java X Pr26.java X Pr27.java X Pr28.java X

Run: Pr18 X Pr27 X Pr28 X

Notifications Run

```
1 package JavaKonusalSorular.Pratik20_Exceptions;
2
3 public class Pr28 {
4
5     public static void main(String[] args) {
6
7         // iki tam sayinin bolumlerini yazdiriniz
8
9         int sayi1 = 18;
10        int sayi2 = 6;
11
12        /*
13         * jayaya Exceptions'i (checked-->CTE) handle edilmezse pr (stops execution) uygulamayı durdurur.
14         * throws an exception (Exceptions fırlatır) handle için problemi gösterir.
15
16        */
17
18        try {
19            System.out.println("bolme isleminin sonucu : " + sayi1 / sayi2);
20        } catch (ArithmeticsException e) {
21            System.out.println("bolen 0 olamazz..."); //--> Bizim kullanıcıye uyarıdigimiz mesaj handle
22
23            System.out.println(e); //--> java.lang.ArithmeticsException: / by zero
24
25            //handle için hatanın yazdırılması... Tedavi təshise tabidir...
26
27            System.out.println(e.getMessage()); //--> / by zero //daha az açıklama yazdırır.
28
29            e.printStackTrace(); //--> hatanın tüm verilerini verir. sysa gerek yok zaten method void
30            * java.lang.ArithmeticsException: / by zero
31            * at NewDay/TechProEd2021._01_JavaTechProEd.day38_exceptions.Exceptions03.main(Exceptions03.java:14)
32            */
33        }
34
35        System.out.println("dewamkeeee");
36    }
37}
```

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\bolme isleminin sonucu : 3 dewamkeeee

Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 14 sec, 312 ms (a minute ago) 33:6 LF UTF-8 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr30.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr30 > main

Project Commit Pull Requests Bookmarks Structure

1.java x Pr25\_2.java x Pr26.java x Pr27.java x Pr28.java x Pr29.java x Pr30.java x Run: Pr18 x Pr27 x Pr30 x Notifications

Pr30.java code:

```
package JavaKonusalSorular.Pratik20_Exceptions;
import ...;
public class Pr30 {
    public static void main(String[] args) {
        /*Eğer kod creat edilirken birden fazla exception durumu olusuyorsa
        Icice(nested) try-catch bloklari creat edilmeli
        Bu ornekte ilk once dosyayı okutmak istedik
        Java "Ya dosyayı bulamazsam? " diye bizden yardım istedi
        Biz de try-catch blogu ile FileNotFoundException ile handle etmesinde yardımci olduk
        Sonra dosyadaki yazıları okumaya calistik ve Java yeniden "Ya dosyayı okuyamazsam "
        diye yardım istedi
        Biz de try-catch blogu ile IOException ile handle etmesini sagladık. */

        try {
            FileInputStream fis = new FileInputStream( name: "C:\\\\Users\\\\ASUS\\\\eclipse-workspace" +
                "\\\\mehmetBulutluoz\\\\src\\\\TechProEd2021._01_JavaTechProEd.day39_exceptions\\\\File");
            int i=0;
            try {
                while ((i=fis.read()) !=-1) {
                    System.out.print((char)i);
                    // (i) yi ((char)k) yapinca ascii degerleri yerine file yazdirildi
                }
            } catch (IOException e) { // dosyalarla ilgili genel yazma ve okuma sorunları ile handle edebiliriz
                // I= input yazirma
                // O= output okutma
                e.printStackTrace();
            }
            } catch (FileNotFoundException e) {

                System.out.println(e.getMessage());
            }
            System.out.println("");
            System.out.println("Dewamkee ..!!!!!");
        }
    }
}
```

Run log:

```
C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\\ASUS\\eclipse-workspace\\mehmetBulutluoz\\src\\TechProEd2021._01_JavaTechProEd.day39_exceptions\\File"
Dewamkee ..!!!!!
Process finished with exit code 0
```

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 20 sec, 463 ms (moments ago)

7:1 LF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr37.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr37 > main

Project Commit Pull Requests Bookmarks Structure

Pr26.java x Pr27.java x Pr28.java x Pr29.java x Pr30.java x Pr31.java x Pr37.java x Run: Pr18 x Pr27 x Pr37 x Notifications

Pr20  
Pr21  
Pr22  
Pr23  
Pr24  
Pr25\_1  
Pr25\_2  
Pr26  
Pr27  
Pr28  
Pr29  
Pr30  
Pr31  
Pr32  
Pr33  
Pr34  
Pr35  
Pr36  
Pr37  
Pr38  
Pr39  
Pr40  
Pr41  
Pratik21\_Abstract  
Pratik22\_Interface  
Pratik23\_Iterator  
Pratik24\_Set\_Has  
Pratik25\_Queue\_I  
Pratik26\_Maps  
Pratik27\_StringM

```
package JavaKonusalSorular.Pratik20_Exceptions;
import java.util.Scanner;

public class Pr37 {
    public static void main(String[] args) {
        /*
        Kullanicidan yasini girmesini isteyin. Kodunuzu kullanicisi
        sifirdan kucuk bir sayi girerse Exception verecek sekilde yazin.
        */

        Scanner scan =new Scanner(System.in);
        System.out.println("Lutfen yazsinizi giriniz");
        int yas=scan.nextInt();

        if (yas>=0) {
            System.out.println("Girdiginiz yas : " + yas);
        }else {
            throw new IllegalArgumentException();
        }
        System.out.println("Kod bloke olmamis");

        // Java'ya bir exception throw ettirmek icin "throw" ve "new" keyword'leri kullanilir
        // bu sekilde yazdigimizda Java exception throw eder ama
        // kodumuz da bloke olmus olur.
        // bloke olmasini engellemek isterseniz kodu try catch ile surround yapabiliriz
    }
}
```

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\...\lib\jdepu\jdpu-agent.jar" -Djdpu.config=C:\...\config\jdpu\jdpu-config.xml Lutfen yazsinizi giriniz 35 Girdiginiz yas : 35 Kod bloke olmamis Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (moments ago)

8:1 LF windows-1254 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr39.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik20\_Exceptions > Pr39 > main

Project Commit Pull Requests Bookmarks Structure

Pr39.java

```
package JavaKonusalSorular.Pratik20_Exceptions;
public class Pr39 {
    public static void main(String[] args) {
        int arr[] = {1, 4, 7, 8};
        try { //--> try deneme kontrol blogudur
            System.out.println(arr[20]);
        } catch (ArrayIndexOutOfBoundsException e) { //--> catch uyarı handle blogudur.
            e.printStackTrace();
        } finally { //java
            System.out.println("dewamkeee okuduysan final blok run olmustur....");
        }
        //try-catch hata olacak ama olunca catch deki gibi yap yoluna devam et code calissin
    }

    //sory try body sadece catch body iceri calisir: haryir try body finally ile de calisir.
    // Finally blogu try-catch blogu ile veya sadece try blogu ile calisabilir.
    // Finally blogu catch ile ongordugum bir sorun oldugunda calistigi gibi
    // ongoremedigim bir exception olustugunda da calisir.finally beklenmedik
    // hata olsa bile mutlaka calisir.
    // Finally block, her durumda calisir
    /*
Finally block cloud veya database ile connection'i bitirme veya üzerinde
calisan dosyayı kapatma gibi islemler icin kullanilir.
Finally block catch blogu olmadan sadece try ile de kullanilabilir.
Bu durumda catch blogu olmadiginden Java throws exception ardindan finally ile
istedigimiz islemi yapar
*/
}
```

Run: Pr39, Pr18, Pr27, Pr39

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\Java\Java Profiler Agent\jprofiler.jar=d=1" -jar "C:\Users\HP\OneDrive\Documents\JavaKonusalSorular\JavaKonusalSorular.jar" --title="JavaKonusalSorular" --width=1280 --height=800

Notifications

Process finished with exit code 0

Git:

7:15 LF UTF-8 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - insan.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik21\_Abstract > Pr01 > C insan > m insan

Project Commit Pull Requests Bookmarks Structure

Pr29.java x Pr30.java x Pr31.java x Pr37.java x Pr38.java x Pr39.java x Pr40.java x Pr41.java x Calisan.java x insan.java x

Notifications Run

```
1 package JavaKonusalSorular.Pratik21_Abstract.Pr01;
2 /*
3 1) abstract bir insan class creat ediniz. fields: private String isim;
4     private String soyisim;
5     parametre'li constructor creat ediniz
6     abs calis method creat ediniz
7     concrete bilgilendirme method creat ediniz-->fields print etsin
8     concrete isimDegistir method creat ediniz-->fields parametre alsin atama yapsin
9
10 2) insan classina sub class olacak calisan class creat ediniz fields:private int calisanId;
11     calisanId==0 ise calisan degil aksi durumda calisan oldugunu kontrol edip id si ile yazdiriniz
12     3 farkli obj ile ozellikleriniz yazdiriniz */
13
14 public abstract class insan {
15     private String isim;
16     private String soyisim;
17
18     public insan(String isim, String soyisim) {
19         this.isim = isim;
20         this.soyisim = soyisim;
21     }
22
23     public abstract void calis();
24
25     public void Bilgilendirme() {
26
27         System.out.println("isim: " + this.isim + " Soyisim : " + this.soyisim);
28     }
29     public void isimDegistir(String isim, String soyisim) {
30
31         this.isim = isim;
32         this.soyisim = soyisim;
33     }
34 }
```

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 14 sec, 735 ms (moments ago) 21:6 LF UTF-8 4 spaces master

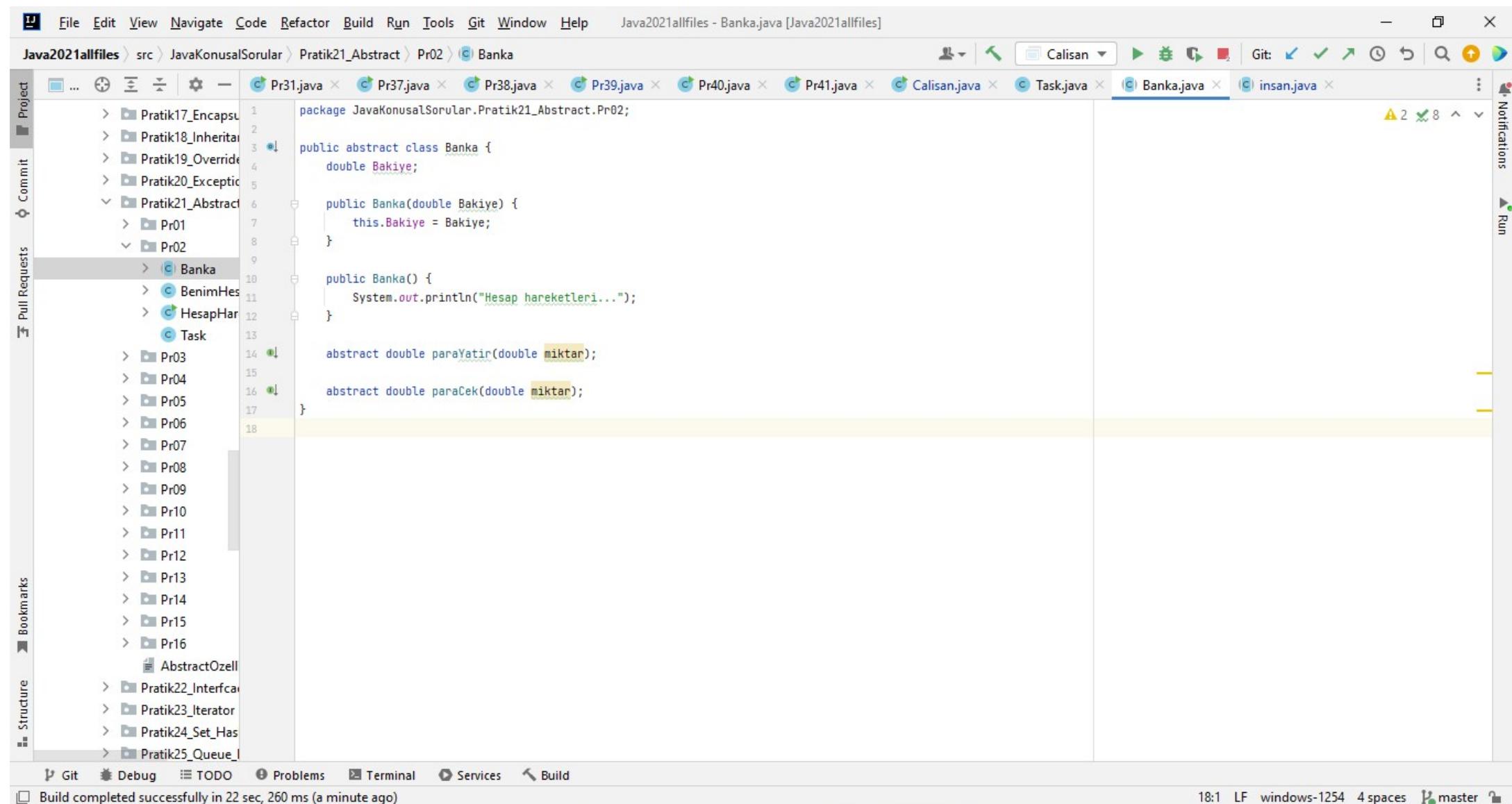
The screenshot shows an IDE interface with the following details:

- File Menu:** File, Edit, View, Navigate, Code, Refactor, Build, Run, Tools, Git, Window, Help.
- Title Bar:** Java2021allfiles - Calisan.java [Java2021allfiles]
- Project Tree:** Java2021allfiles > src > JavaKonusalSorular > Pratik21\_Abstract > Pr01 > Calisan
- Code Editor:** The file Calisan.java contains Java code for a class named Calisan that extends insan. It includes methods calis() and main(). The code uses System.out.println to output information about employees.
- Run Tab:** Shows the command used for execution: C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2021.3.1\lib\idea\_rt.jar" -Dfile.encoding=UTF-8 -jar C:\Users\HP\IdeaProjects\Java2021allfiles\target\classes.jar
- Output Panel:** Displays the execution results:
  - İsim: Ömer Soyisim : Özdemir Çalışan değil.
  - id = 0
  - İsim: Hüseyin Soyisim : Özdemir Şirkette çalışıyor..
  - id = 22
  - İsim: Hande Soyisim : Yılmaz Şirkette çalışıyor..
  - id = 123
  - İsim: Mahmut Soyisim : AkçayProcess finished with exit code 0
- Bottom Navigation:** Git, Debug, TODO, Problems, Terminal, Services, Build.
- Bottom Status:** Build completed successfully in 22 sec, 260 ms (moments ago)

The screenshot shows an IDE interface with the following details:

- File Bar:** File, Edit, View, Navigate, Code, Refactor, Build, Run, Tools, Git, Window, Help.
- Title Bar:** Java2021allfiles - Task.java [Java2021allfiles]
- Toolbar:** Calisan, Git status icons.
- Project Explorer:** Shows a tree view of the project structure under "Java2021allfiles > src".
  - Pratik17\_Encapsu
  - Pratik18\_Inheritan
  - Pratik19\_Override
  - Pratik20\_Exception
  - Pratik21\_Abstract
    - Pr01
    - Pr02
      - Banka
      - BenimHes
      - HesapHar
      - Task**
    - Pr03
    - Pr04
    - Pr05
    - Pr06
    - Pr07
    - Pr08
    - Pr09
    - Pr10
    - Pr11
    - Pr12
    - Pr13
    - Pr14
    - Pr15
    - Pr16
      - AbstractOzell
    - Pratik22\_Interfac
    - Pratik23\_Iterator
    - Pratik24\_Set\_Has
    - Pratik25\_Queue\_
- Code Editor:** Displays the content of Task.java.

```
package JavaKonusalSorular.Pratik21_Abstract.Pr02;  
public class Task {  
    /*  
     * 1) Abstract Banka class creat ediniz. fields: double Bakiye;  
     * p'li constructor creat ediniz  
     * p'siz constructor --> print:Hesap hareketleri...  
     * p'li paraYatir ve p'li paraCek abs method creat ediniz  
     *  
     * 2) Banka class'in sup class'i BenimHesabim class creat ediniz  
     * p'li bakiye print eden constructor creat ediniz  
     *  
     * 3) HesapHareketlerim class'ta obj ile islemler yapip yazdiriniz
```
- Notifications:** Shows 1 warning and 32 errors.
- Bottom Bar:** Git, Debug, TODO, Problems, Terminal, Services, Build.
- Status Bar:** Class 'Task' is never used, 3:14, LF, windows-1254, 4 spaces, master.



File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - BenimHesabim.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik21\_Abstract > Pr02 > BenimHesabim

Calisan

Pr37.java X Pr38.java X Pr39.java X Pr40.java X Pr41.java X Calisan.java X Task.java X Banka.java X BenimHesabim.java X insan.java X

Project Commit Pull Requests Bookmarks Structure

Notifications Run

```
1 package JavaKonusalSorular.Pratik21_Abstract.Pr02;
2
3 public class BenimHesabim extends Banka {
4     @Override
5     double paraYatir(double miktar) {
6         super.Bakiye += miktar;
7         return super.Bakiye;
8     }
9
10    @Override
11    double paraCek(double miktar) {
12        super.Bakiye -= miktar;
13        return super.Bakiye;
14    }
15
16    public BenimHesabim(double Bakiye) {
17        super.Bakiye = Bakiye;
18        System.out.println(Bakiye);
19    }
20
21 }
```

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 22 sec, 260 ms (a minute ago) 21:1 LF windows-1254 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - HesapHareketlerim.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik21\_Abstract > Pr02 > HesapHareketlerim > main

Project Commit Pull Requests Bookmarks Structure

Calisan.java Task.java Bankajava BenimHesabim.java HesapHareketlerim.java

Run: Pr18 Pr27 HesapHareketlerim

Git:

1 package JavaKonusalSorular.Pratik21\_Abstract.Pr02;  
2  
3 public class HesapHareketlerim {  
4  
5 public static void main(String[] args) {  
6  
7 BenimHesabim bh = new BenimHesabim( Bakiye: 100);  
8  
9 System.out.println(bh.paraYatir( miktar: 500));  
10  
11 System.out.println(bh.paraCek( miktar: 200));  
12 }  
13 }  
14  
15

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2021.3.1\lib\idea\_rt.jar" -Dfile.encoding=UTF-8 Hesap hareketleri...  
100.0  
600.0  
400.0  
Process finished with exit code 0

Run

Git:

Build completed successfully in 15 sec, 930 ms (moments ago)

10:9 LF windows-1254 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Urun.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik21\_Abstract > Pr03 > Urun

Project Commit Pull Requests Bookmarks Structure

Calisan.java Task.java Bankajava Urun.java KacileCarpma.java ikilleCarpma.java BenimHesabim.java HesapHareketlerim.java

Notifications Run

```
package JavaKonusalSorular.Pratik21_Abstract.Pr03;  
public abstract class Urun {  
    int carpma;  
    public Urun(int carpma) {  
        this.carpma = carpma;  
    }  
    public int carp(int deger) {  
        return carpma * deger;  
    }  
}
```

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 15 sec, 930 ms (a minute ago) 14:1 LF windows-1254 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - ikilleCarpma.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik21\_Abstract > Pr03 > ikilleCarpma

HesapHareketlerim

Project Commit Pull Requests Bookmarks Structure

```
1 package JavaKonusalSorular.Pratik21_Abstract.Pr03;
2
3 public class ikilleCarpma extends Urun {
4
5     public ikilleCarpma() {
6         super( carpma: 2);
7     }
8 }
```

Notifications Run

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 15 sec, 930 ms (a minute ago) 10:1 LF windows-1254 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - KacileCarp.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik21\_Abstract > Pr03 > KacileCarp

Project Commit Pull Requests Bookmarks Structure

Calisan.java Task.java Bankajava Urun.java KacileCarp.java iki.java Run: Pr18 Pr27 KacileCarp Git: Notifications Run

```
package JavaKonusalSorular.Pratik21_Abstract.Pr03;
public class KacileCarp extends Urun {
    public KacileCarp(int kac) { super(kac); }
    public static void main(String[] args) {
        ikiIleCarpma icarp = new ikiIleCarpma();
        KacileCarp kcarp = new KacileCarp(4);
        System.out.println(icarp.carp( deger: 3));
        System.out.println(kcarp.carp( deger: 1));
    }
}
```

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\Java\Java Konusal Sorular\Pratik21\_Abstract\Pr03\KacileCarp.jar" -Dfile.encoding=UTF-8

Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 11 sec, 970 ms (moments ago) 17:1 LF windows-1254 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - abstractDatabase.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik21\_Abstract > Pr04 > abstractDatabase

KacileCarp

Project Commit Pull Requests Bookmarks Structure

abstractDatabase.java

```
package JavaKonusalSorular.Pratik21_Abstract.Pr04;

public abstract class abstractDatabase {

    public void add() {
        System.out.println("Eklendi...");
    }

    public void delete() {
        System.out.println("Silindi...");
    }

    abstract void get();
    //Her database de kesinlikle olacak olan özellikleri abstract ile yazıyoruz

    abstract void update();
}
```

abstractDatabase.java huaweiDatabase.java samsungDatabase.java ikilleCarpma.java BenimHesabim.java HesapHareketlerim.java

Notifications Run

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 11 sec, 970 ms (a minute ago) 19:1 LF UTF-8 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - huaweiDatabase.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik21\_Abstract > Pr04 > huaweiDatabase

KacileCarp

Project Commit Pull Requests Bookmarks Structure

```
package JavaKonusalSorular.Pratik21_Abstract.Pr04;

public class huaweiDatabase extends abstractDatabase {

    @Override
    void get() {
        System.out.println("Huawei çalışanı bilgisi elde etme...");
    }

    @Override
    void update() {
        System.out.println("Huawei çalışanı bilgisi güncelleme...");
    }
}
```

Notifications Run

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 11 sec, 970 ms (a minute ago) 15:1 LF UTF-8 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - samsungDatabase.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik21\_Abstract > Pr04 > samsungDatabase.java > get

KacileCarp

Project Commit Pull Requests Bookmarks Structure

abstractDatabase.java huaweiDatabase.java samsungDatabase.java ikilleCarpma.java BenimHesabim.java HesapHareketlerim.java

Notifications Run

```
package JavaKonusalSorular.Pratik21_Abstract.Pr04;

public class samsungDatabase extends abstractDatabase {

    @Override
    void get() {
        System.out.println("Samsung çalışan bilgisi elde etme...");
    }

    @Override
    void update() {
        System.out.println("Samsung çalışan bilgisi güncelleme...");
    }
}
```

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 11 sec, 970 ms (a minute ago) 7:15 LF UTF-8 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - main.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik21\_Abstract > Pr04 > main

Project Commit Pull Requests Bookmarks Structure

abstractDatabase.java huaweiDatabase.java samsungDatabase.java main.java

main

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2021.2.1\lib\idea\_rt.jar" -Dfile.encoding=UTF-8 -jar C:\Users\HP\IdeaProjects\Java2021allfiles\target\classes.jar

Notifications Run

```
package JavaKonusalSorular.Pratik21_Abstract.Pr04;

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

        abstractDatabase samsung = new samsungDatabase();
        abstractDatabase huawei = new huaweiDatabase();

        samsung.add();
        samsung.delete();
        samsung.get();
        samsung.update();

        System.out.println("-----");

        huawei.add();
        huawei.delete();
        huawei.get();
        huawei.update();
    }
}
```

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 14 sec, 155 ms (moments ago)

24:1 LF windows-1254 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - C1\_Final.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik21\_Abstract > Pr06 > C1\_Final > main

Project Commit Pull Requests Bookmarks Structure

base.java huaweiDatabase.java samsungDatabase.java main.java C1\_Final.java

Run: C1\_Final Pr18 Pr27 C1\_Final

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2021.2.1\lib\idea\_rt.jar=5314:C:\Users\HP\IdeaProjects\Java2021allfiles" -Dfile.encoding=UTF-8 -classpath "C:\Users\HP\IdeaProjects\Java2021allfiles\src\main\java;C:\Users\HP\IdeaProjects\Java2021allfiles\src\test\java;C:\Users\HP\IdeaProjects\Java2021allfiles\src\main\resources;C:\Users\HP\IdeaProjects\Java2021allfiles\src\test\resources;C:\Users\HP\IdeaProjects\Java2021allfiles\out\production\Java2021allfiles;C:\Users\HP\IdeaProjects\Java2021allfiles\out\test\production\Java2021allfiles" C1\_Final

1 package JavaKonusalSorular.Pratik21\_Abstract.Pr06;  
2  
3 public class C1\_Final {  
4  
5 final static int SAYI=10;  
6  
7 //instance bir variable'i final ve static yaparsanız java onu bold yapsın  
8 // biz de ismi BUYUK HARFLE yazarız  
9  
10 String isim; // null  
11 // Instance variable'lara ilk değer atanması yapmak zorunda değiliz  
12 // Değer atanmadığımızda Java data turune göre default bir değer atar  
13  
14 // final String soyisim;  
15 // final variable'ların değeri sonradan degistirilemeyeceği için  
16 // ilk atama yapılmadan oluşturulmasına Java izin vermez  
17 public static void main(String[] args) {  
18  
19 System.out.println(SAYI);  
20  
21 System.out.println(Integer.MAX\_VALUE);  
22 }  
23  
24 public void deneme() {  
25 System.out.println("deneme yapıyoruz");  
26 }  
27  
28 public final void deneme2() {  
29 System.out.println("deneme yapıyoruz 2");  
30 }  
31 }  
32

Pratik22\_Interface

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (moments ago) 22:6 LF windows-1254 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - C2\_Final2.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik21\_Abstract > Pr06 > C2\_Final2

Project Commit Pull Requests Bookmarks Structure

Run: C2\_Final2 > Pr18 > Pr27 > C2\_Final2

Notifications Run

```
1 package JavaKonusalSorular.Pratik21_Abstract.Pr06;
2
3 public class C2_Final2 extends C1_Final {
4
5     public static void main(String[] args) {
6
7         System.out.println(SAYI);
8
9         //static bir variable okul ismi gibi herkes icin aynidir
10
11        //C1_final.SAYI+=20;
12        // SAYI variable'i final olarak tanimlandigi icin DEGISTIRILEMEZ
13
14        C2_Final2 obj1 = new C2_Final2();
15
16        obj1.deneme();
17    }
18
19    public void deneme() {
20        System.out.println("child class'daki overriding method");
21    }
22
23    /*
24    public void deneme2() {
25        //Cannot override the final method from C1_final
26    }
27
28    */
29
30    // final class yaptigimizda inherit edilemez
31}
```

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2021.3.1\lib\idea\_rt.jar=5334:C:\Users\HP\IdeaProjects\Java2021allfiles" -Dfile.encoding=UTF-8 -classpath "C:\Users\HP\IdeaProjects\Java2021allfiles\out\production\Java2021allfiles" C2\_Final2
10
child class'daki overriding method
Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 29 sec, 215 ms (moments ago) 31:1 LF windows-1254 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - AbstractNotlari [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik21\_Abstract > Pr09 > AbstractNotlari

Project Commit Pull Requests Bookmarks Structure

huaweiDatabase.java samsungDatabase.java main.java C1\_Final.java C2\_Final2.java C1\_Final01.java C2\_Final02.java AbstractNotlari

1) Parent class'daki body'siz methodlara abstract methodlar denir.  
Bazi child parent ilişkisindeki classlarda child class parent class'in bazi methodlarını kullanmak zorunda ise  
o methodlar abstract hale getirilir...  
ABSTRACT CLASS'LARDA OBJ ASLA CREAT EDILEMEZ....

2) Bir method'u abstract yapmak için--> {body} silinir ve return type den once "abstract" keyword kullanılır.

3) Abstract bir method ancak abstract bir class'da creat edilir.  
Concrete class'da asla abstract method creat edilmez

4) Abstract bir class'da hem abstract hem de concrete method olabilir.

5) Concrete class abstract class'a extend edildiginde abstract class'taki tum abstract methodları implement(uyarlama) zorundadır!!  
Ama concreate methodları implement etmeyebilir...

6) Bir Abstract Class başka bir abstract class'a extend edildiginde herhangi bir methodu override etmek zorunda degildir...  
Zaten hepsi gelir...  
Cunku javaya gore abstract child class'ında mutlaka concrete bir child class vardır.

7) Final, private ve static methodlar abstract o-la- mazz!!!

8) Abstract Class'ta concreate variable olabilir. Ama bu variable asla kesinlikle abstract o-la-maz!!!

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 29 sec, 215 ms (a minute ago)

1:1 CRLF windows-1254 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Volvo.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik21\_Abstract > Pr09 > Volvo

Project Commit Pull Requests Bookmarks Structure

base.java samsungDatabase.java main.java C1\_Final.java C2\_Final2.java C1\_Final01.java C2\_Final02.java AbstractNotlari Volvo.java

Notifications Run

```
1 package JavaKonusalSorular.Pratik21_Abstract.Pr09;
2
3 public abstract class Volvo { // abs class
4
5     public abstract void kapi(); // abs method
6
7     public abstract void motor(); // abs method
8
9     int fiyat;
10
11    public void sunroof() { // concreate method
12
13        System.out.println("sunroof ile geceleri mehtaba dalip yoldan cikma");
14
15    }
16}
```

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 29 sec, 215 ms (a minute ago) 3:23 CRLF windows-1254 Tab\* master

The screenshot shows a Java development environment with the following details:

- File Menu:** File, Edit, View, Navigate, Code, Refactor, Build, Run, Tools, Git, Window, Help.
- Project Tree (Left):** Shows a hierarchical project structure under "Java2021allfiles".
  - src
    - JavaKonusalSorular
      - Pratik21\_Abstract
        - Pr09
          - V40
  - Code Editor (Center):** Displays the content of the V40.java file.

```
1 package JavaKonusalSorular.Pratik21_Abstract.Pr09;
2
3 public class V40 extends Volvo {
4
5     @Override
6     public void kapi() {
7
8         }
9
10    @Override
11    public void motor() {
12
13        }
14
15        //concrete class
16
17
18 }
```
  - Toolbars and Status Bar (Bottom):**
    - Git, Debug, TODO, Problems, Terminal, Services, Build.
    - Build completed successfully in 29 sec, 215 ms (a minute ago).
    - 18:2 CRLF windows-1254 Tab\* master

The screenshot shows an IDE interface with the following details:

- File Menu:** File, Edit, View, Navigate, Code, Refactor, Build, Run, Tools, Git, Window, Help.
- Project Tab:** Java2021allfiles > src > JavaKonusalSorular > Pratik21\_Abstract > Pr09 > S80
- Code Editor:** The current file is S80.java, which contains the following Java code:

```
package JavaKonusalSorular.Pratik21_Abstract.Pr09;
public class S80 extends Volvo { // concreat class
    @Override
    public void kapil() {
        System.out.println("5 kapili");
    }
    @Override
    public void motor() {
        System.out.println("1800 cc basarili");
    }
}
```
- Toolbars and Buttons:** C2\_Final2, Git status icons, Run, Stop, Refresh, Save, Undo, Redo, Find, Replace, etc.
- Side Panels:**
  - Project Panel:** Shows a tree view of the project structure, including categories like Pratik12\_WhileLoop, Pratik13\_DoWhile, Pratik14\_Arrays, etc., and specific files like Pr01, Pr02, Pr03, etc.
  - Bookmarks Panel:** Shows a list of bookmarked files: AbstractNotlari, Kaporta, S80 (which is selected), V40, Volvo, Pr10, Pr11, Pr12, Pr13, Pr14, Pr15.
  - Notifications Panel:** Shows a notification for 1 warning and 4 errors.
- Bottom Status Bar:** Git icon, Debug, TODO, Problems, Terminal, Services, Build, Class 'S80' is never used, 3:14, CRLF, windows-1254, Tab\*, master.

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Kaporta.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik21\_Abstract > Pr09 > Kaporta

Project Commit Pull Requests Bookmarks Structure

java C1\_Final.java C2\_Final2.java C1\_Final01.java C2\_Final02.java AbstractNotlari Volvo V40.java S80.java Kaporta.java

Notifications Run

```
package JavaKonusalSorular.Pratik21_Abstract.Pr09;

public abstract class Kaporta extends Volvo {

    @Override
    public void kapi() { // abstract parent class volvoda'ski abstract method kapi artik concrete oldu...
        System.out.println("volvo kapiları çok sağlam kazada suikast silahı gibi");
    }
    // private final ve static cte verir abstract olamaz...
    // final abstract void kapikolu();
    // private abstract void mentese();
    // static abstract void bagaj();
}
```

AbstractNotlari > Kaporta > S80 > V40 > Volvo > Pr10 > Pr11 > Pr12 > Pr13 > Pr14 > Pr15

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 29 sec, 215 ms (2 minutes ago) 17:2 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Sekil.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik21\_Abstract > Pr13 > Sekil

Project Commit Pull Requests Bookmarks Structure

```
1 package JavaKonusalSorular.Pratik21_Abstract.Pr13;
2
3 /**
4  * $Sekil diye bir class olusturalim çevre ve alan abstract methodlari olsun
5  *
6  * -ucgen
7  * -eskenar
8  * -ikizkenar
9  * -cesitkenar
10 * -dikdortgen
11 * -daire
12 *
13 * herbirinin alan ve cevresini hesaplayan kodu yazin
14 */
15
16 public abstract class Sekil {
17     // abstract class larda body olmaz..
18     // abstract icinde concrete method yapabilmiz..
19     // parametreli cons olmaz..
20
21     public abstract int çevre();
22     public abstract int alan();
23
24 }
```

Git Debug TODO Problems Terminal Services Build

Typo: In word 'Sekil'

16:25 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Dikdortgen.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik21\_Abstract > Pr13 > Dikdortgen

C2\_Final2

Notifications Run

Project Commit Pull Requests Bookmarks Structure

```
1 package JavaKonusalSorular.Pratik21_Abstract.Pr13;
2
3 public class Dikdortgen extends Sekil {
4
5     public int kk,uk;
6
7     // Kullanicidan almazsak parametreli cons olusturup yapabiliyoruz...
8     public Dikdortgen(int kk, int uk) {
9         super();
10        this.kk = kk;
11        this.uk = uk;
12    }
13
14    @Override
15    public int cevre() {
16        return 2*(kk+uk);
17    }
18
19    @Override
20    public int alan() {
21
22        return kk*uk;
23    }
24
25
26
27
28
29 }
```

Dikdortgen Runner Sekil AbstractOzell

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 29 sec, 215 ms (3 minutes ago)

29:2 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Runner.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik21\_Abstract > Pr13 > Runner

Project Commit Pull Requests Bookmarks Structure

Runner

V40.java S80.java Kaporta.java Sekil.java Dikdortgen.java Runner.java

Run: Pr18 Pr27 Runner

Notifications

Pratik21\_Abstract

Pr01 Pr02 Pr03 Pr04 Pr05 Pr06 Pr07 Pr08 Pr09 Pr10 Pr11 Pr12 Pr13 Dikdortgen Runner Sekil Pr14 Pr15 Pr16 AbstractOzell

package JavaKonusalSorular.Pratik21\_Abstract.Pr13;  
import java.util.Scanner;  
  
public class Runner {  
  
 // static Dikdortgen dikdortgen=new Dikdortgen();  
 static Scanner scan = new Scanner(System.in);  
  
 public static void main(String[] args) {  
  
 // Kullanicidan almazsak parametreli cons olusturup yapabiliyoruz...  
 Dikdortgen dikdortgen = new Dikdortgen( 5, 10 );  
  
 /\*  
 \* Scanner scan=new Scanner(System.in);  
 \* System.out.println("kisa kenar : ");  
 \* dikdortgen.kk=scan.nextInt();  
 \* System.out.println("uzun kenar : ");  
 \* dikdortgen.uk=scan.nextInt();  
 \*/  
  
 System.out.println("dikdortgenin cevresi: " + dikdortgen.cevre());  
 System.out.println("dikdortgenin alani : " + dikdortgen.alan());  
 }  
}

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\Java\Visual Studio Java Agent.jar" -Dfile.encoding=UTF-8 C:\Users\HP\IdeaProjects\Java2021allfiles\src\JavaKonusalSorular\Pratik21\_Abstract\Pr13\Runner  
dikdortgenin cevresi: 30  
dikdortgenin alani : 50  
Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (moments ago)

28:2 CRLF windows-1254 Tab\* master

The screenshot shows an IDE interface with the following details:

- File Menu:** File, Edit, View, Navigate, Code, Refactor, Build, Run, Tools, Git, Window, Help.
- Project Path:** Java2021allfiles > src > JavaKonusalSorular > Pratik21\_Abstract > Pr14 > Sekil.java
- Code Editor:** The current file is Sekil.java, which contains the following code:

```
1 package JavaKonusalSorular.Pratik21_Abstract.Pr14;
2
3 /**
4  * $Sekil diye bir class olusturalim çevre ve alan abstract methodlari olsun
5  *
6  * -ucgen
7  * -eskenar
8  * -ikizkenar
9  * -cesitkenar
10 * -dikdortgen
11 * -daire
12 *
13 * herbirinin alan ve çevresini hesaplayan kodu yazın
14 */
15
16 public abstract class Sekil {
17     // abstract class larda body olmaz..
18     // abstract icinde concrete method yapabiliyoruz..
19     // parametreli cons olmaz..
20
21     public abstract double çevre();
22     public abstract double alan();
23
24 }
```
- Project Explorer:** Shows a tree view of the project structure, including various practice files like Pr01 through Pr16, AbstractNotlari, and several shape classes (Volvo, V40, S80, Kaporta, Pr13\Sekil, Dikdortgen, Runner).
- Toolbars and Status Bar:** Includes tabs for Runner, Git, and Notifications. The status bar at the bottom shows "All files are up-to-date (2 minutes ago)" and "24:2 CRLF windows-1254 Tab\* master".

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Daire.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik21\_Abstract > Pr14 > Daire

Project Commit Pull Requests Bookmarks Structure

```
1 package JavaKonusalSorular.Pratik21_Abstract.Pr14;
2
3 public class Daire extends Sekil {
4
5     public double pi;
6     public double r;
7
8     public Daire(double pi, double r) {
9         super();
10        this.pi = pi;
11        this.r = r;
12    }
13
14    @Override
15    public double cevre() {
16        return 2*pi*r;
17    }
18
19    @Override
20    public double alan() {
21
22        return pi*r*r;
23    }
24
25    }
26
27
28
29
30    }
31}
```

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (2 minutes ago) 30:2 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr14\Runner.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik21\_Abstract > Pr14 > Runner

Dikdortgen.java ✘ Pr13\Runner.java ✘ Pr14\Sekil.java ✘ Daire.java ✘ Pr14\Runner.java ✘ Run: JavaKonusalSorular.Pratik21\_Abstract.Pr14.Runner ✘ Notifications

Project Commit Pull Requests Bookmarks Structure

Pratik12\_WhileLoop ✘ Pratik13\_DoWhileLoop ✘ Pratik14\_Arrays ✘ Pratik15\_ArrayLists ✘ Pratik16\_Constructors ✘ Pratik17\_Encapsulation ✘ Pratik18\_Inheritance ✘ Pratik19\_OVERRIDES ✘ Pratik20\_Exceptions ✘ Pratik21\_Abstract ✘ Pr01 ✘ Pr02 ✘ Pr03 ✘ Pr04 ✘ Pr05 ✘ Pr06 ✘ Pr07 ✘ Pr08 ✘ Pr09 ✘ Pr10 ✘ Pr11 ✘ Pr12 ✘ Pr13 ✘ Pr14 ✘ Daire ✘ Runner ✘ Sekil ✘ Pr15 ✘ Pr16 ✘ AbstractOzell

```
package JavaKonusalSorular.Pratik21_Abstract.Pr14;
import java.util.Scanner;
public class Runner {
    static Daire daire = new Daire( pi: 5, r: 3.14);
    static Scanner scan = new Scanner(System.in);
    public static void main(String[] args) {
        /*System.out.println("Dairenin yaricapini giriniz : ");
        int r=scan.nextInt();
        System.out.println("Dairenin pi degerini (3,14) giriniz : ");
        int pi=scan.nextInt();
        */
        System.out.println("Dairenin cevresi : " + daire.cevre());
        System.out.println("Dairenin Alani : " + daire.alan());
    }
}
```

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\Java\Java Mission Control\jmc.jar" -jar C:\Users\HP\IdeaProjects\Java2021allfiles\out\artifacts\Java2021allfiles\_Jar\Java2021allfiles.jar  
Dairenin cevresi : 31.400000000000002  
Dairenin Alani : 49.298  
Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (moments ago) 6:1 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Interface01.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik22\_Interfcae > Pr01 > Interface01

Project Commit Pull Requests Bookmarks Structure

AbstractOzellikleri > Interface01.java

```
1 package JavaKonusalSorular.Pratik22_Interfcae.Pr01;
2
3 public interface Interface01 {
4
5     public void motor(); // interface icinde abstract methodlar ve ozel concrete methodlar olabilir
6
7     // Abstract methodun body si yoktur. dinamik ozelligi nasil gerceklestirecek bilemeyeiz...
8     // Sadece ne yapacagini biliriz...
9
10    // Bu method sunu der ; Beni inherit eden her concrete class in dinamik motor ozelligi olmalıdır...
11
12    // Interface de sadece public methodlar ve abstract olur...
13    // Java yazsak t yazmasakta tum methodları bu sekilde kabul eder...
14
15    // Tum methodlar public ve abstract tir...
16
17    public abstract void sanzman();
18
19    void vites(); // Bunun basinda public abstract vardır...
20
21    abstract void kasa(); // Bunun basinda da public vardır...
22
23    // Java da interface olusturmak istiyorsak o sekilde olusturmaliyiz.
24    // Bir class sonradan interface yapılamaz. Class değil direkt interface olarak olusturulur...
25
26    String ISIM = "Hasan";
27    // Java isim kelimesini static ve bold yaptı.
28    // Demek ki tum variable lar final ve static tir...
29    // isim büyük yazılmalıdır...
30
31    // VARIABLE LAR ABSTRACT OLMAZ...
32
33 }
```

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (a minute ago) 32:1 CRLF windows-1254 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Interface02.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik22\_Interfcae > Pr01 > Interface02

Project Commit Pull Requests Bookmarks Structure

AbstractOzellikleri > Interface01.java > Interface02.java

Interface02.java

```
1 package JavaKonusalSorular.Pratik22_Interfcae.Pr01;
2
3 public interface Interface02 {
4
5     default void deneme() {
6         System.out.println("default calisti");
7     }
8
9     static void deneme1() {
10        System.out.println("static calisti");
11    }
12
13 // burdaki default ve static bizim bildigimiz default ve static degildir...
14
15 // interface de default ve static keyword kullanarak concrete method olusturabiliriz...
16 // bu javanin ozel bir cozumudur...
17 // burdaki default ve static keyword basina yazildigi methodun concrete oldugunu belirtir...
18 // bunlar override edilmek ZORUNDA DEGILDIR...
19
20
21
22
23 }
```

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (a minute ago) 23:1 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - InterfaceRunner.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik22\_Interfcae > Pr01 > InterfaceRunner > main

Project Commit Pull Requests Bookmarks Structure

AbstractOzellikleri Interface01.java Interface02.java InterfaceRunner.java

Run: InterfaceRunner

```
package JavaKonusalSorular.Pratik22_Interfcae.Pr01;

public class InterfaceRunner implements Interface02 {

    public static void main(String[] args) {

        // static olarak tanimlanmis variable ve
        // method baska class dan classismi.metodismi ile cagirabiliriz..
        // hemen ornegi asagida yapildi...
        // implementten once olabilir...

        Interface02.deneme1(); // static calisti

        // default keywordu ile olusturulan method obje uzerinden cagrilabilir...
        // implementten sonra yapilir...
        InterfaceRunner obj1= new InterfaceRunner();

        obj1.deneme(); // default calisti
    }
}
```

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Pro static calisti default calisti Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (moments ago)

6:1 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Interface [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik22\_Interface > Interface

Project Commit Pull Requests Bookmarks Structure

AbstractOzellikleri Interface01.java Interface02.java InterfaceRunner.java Interface

Notifications Run

Pratik12\_WhileLoop  
Pratik13\_DoWhileLoop  
Pratik14\_Arrays  
Pratik15\_ArrayList  
Pratik16\_Constructors  
Pratik17\_Encapsulation  
Pratik18\_Inheritance  
Pratik19\_Override  
Pratik20\_Exceptions  
Pratik21\_Abstract  
Pratik22\_Interface  
Pr01  
Pr02  
disDonamim  
lcDonamim  
Interface  
Lastik  
Sahin  
SahinRunner  
Tofas  
Pr03  
Pr04  
Pr05  
Pr06  
Pr07  
Pratik23\_Iterator  
Pratik24\_Set\_HashSet\_Li  
Pratik25\_Queue\_Degue  
Pratik26\_Maps  
Pratik27\_StringManipul

INTERFACE....  
INTERFACE ASLA BIR CLASS DEGILDIR. INTERFACE INTERFACE'dir.  
1) Interface yapıtlarda concrete method asla creat! edilemez. sadece abstract method'lar creat edilir.  
2) Java multiple inheritance desteklemez . Ancak interface parent'ler multiple inheritance'i destekler  
3) Birden fazla parent class'larda aynı isimli methodların olması durumunda child class aynı isimli farklı bodyli methodlar için seçim yapamaz. fakat Interface'lerde methodların bodyleri olmadığından aynı isimli methodlar birbirini tamamen aynı olduğu için seçim söz konusu olmaz ve child class parent interface'den aynı isimli methodlardan birini override ederek bu sorun cozulur  
Ahan da trick : Parent Interface'lerde aynı isimli faktar farklı return type'li methodlar child class'ta CTE verir.  
4) Interface yapıtlarda tüm methodlar abstract olmak zorunda olduğundan method signature "abstract" keywordu ve public access modifier yazılabilir.  
  
public abstract void koltuk(); --> abstract method abstract keyword kullanılmış  
public void ayna(); --> abstract method abstract keyword kullanılmamış  
  
5) Interface'lerdeki tüm member'lar public olduğu için AccesModifier yazılmasa da public ile aynı işlemi yapar.  
public void ayna(); <-> void ayna(); ---> aynı işlemi yaparlar.  
  
Trick : normal class'larda AccMod yazılmazsa default olur. Ancak Interface'lerde AccMod yazılmazsa public olur  
  
6) Interface'ler kendi arasında parent child (extends) ilişkisi kurabilir.  
Interface'leri bir class'a parent yapmak için "implements" keywordu kullanılır.  
Class'ları bir class'a parent yapmak için "extends" keywordu kullanılır.  
  
class --> class : extends  
interface --> interface : extends  
class --> interface : implements

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (moments ago)

1:1 LF windows-1254 4 spaces master

The screenshot shows an IDE interface with the following details:

- Menu Bar:** File, Edit, View, Navigate, Code, Refactor, Build, Run, Tools, Git, Window, Help.
- Title Bar:** Java2021allfiles - Soru [Java2021allfiles]
- Toolbar:** Standard icons for file operations, search, and navigation.
- Project Explorer:** Shows a tree view of the project structure:
  - Java2021allfiles
  - src
    - JavaKonusalSorular
      - Pratik22\_Interfaces
        - Pr03
          - Soru
- Code Editor:** The "Soru" file is open, containing the following code:

```
1 Soru ;
2
3
4
5     Kare, Dikdortken, ve cember sınıflarından olacak bir geometri programı yapmak isteniyor.
6     bunların ayrı ayrı , fakat ortak metodlarının (cevresi() ve alani() )zorunlu olabilmesi için
7     gereklili yapıyı kurunuz ve yazınız.
```
- Toolbars and Side Panels:** Notifications, Run, and other standard IDE toolbars.
- Bottom Status Bar:** Shows the current file type (Java), encoding (UTF-8), character count (25), and the current branch (master).

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - GeoMain.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik22\_Interfcae > Pr03 > GeoMain

Project Commit Pull Requests Bookmarks Structure

InterfaceRunner.java Interface IcDonanim.java disDonanim.java Sahin.java Soru Kare.java Dikdortgen.java GeoMain.java

Notifications Run

```
1 package JavaKonusalSorular.Pratik22_Interfcae.Pr03;
2
3 public class GeoMain {
4     public static void main(String[] args) {
5
6         Dikdortgen dd = new Dikdortgen();
7         System.out.println("dikdörtgen alanı = " + dd.alani( 4, 5));
8         System.out.println("dikdörtgen çevresi = " + dd.cevresi( 4, 5));
9
10        Cember cmbr = new Cember();
11        System.out.println("cember alanı = " + cmbr.alani( 4));
12        System.out.println("cember çevresi = " + cmbr.cevresi( 5));
13
14        Kare kare = new Kare();
15        System.out.println("karenin alanı = " + kare.alani( 6, 6));
16        System.out.println("karenin çevresi = " + kare.cevresi( 6));
17    }
18
19 }
```

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (2 minutes ago) 19:1 LF UTF-8 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - ISekil.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik22\_Interfcae > Pr03 > ISekil

Project Commit Pull Requests Bookmarks Structure

java Interface IcDonanim.java disDonamim.java Sahin.java Soru Kare.java Dikdortgen.java GeoMain.java ISekil.java

Notifications Run

Project

```
1 package JavaKonusalSorular.Pratik22_Interfcae.Pr03;
2
3 public interface ISekil {
4     // int ... kullanıldığından gelen bütün sayılar
5     // dizinin bir elemanı gibi işlem görür ve dizi değişkenine
6     // atanır
7     final double PI = 3.14;
8
9     int cevresi(int... dizi);
10
11    int alani(int... dizi);
12}
```

Pratik12\_WhileLoop  
Pratik13\_DoWhileLoop  
Pratik14\_Arrays  
Pratik15\_ArrayList  
Pratik16\_Constructors  
Pratik17\_Encapsulation  
Pratik18\_Inheritance  
Pratik19\_Override  
Pratik20\_Exceptions  
Pratik21\_Abstract  
Pratik22\_Interfcae  
Pr01  
Pr02  
Pr03  
Cember  
Dikdortgen  
GeoMain  
ISekil  
Kare  
Soru  
Pr04  
Pr05  
Pr06  
Pr07  
Pratik23\_Iterator  
Pratik24\_Set\_HashSet\_Li  
Pratik25\_Queue\_Degue  
Pratik26\_Maps  
Pratik27\_StringManipul  
Pratik28\_StringBuilder

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (3 minutes ago) 13:1 LF UTF-8 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Dikdortgen.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik22\_Interfcae > Pr03 > Dikdortgen

Project Commit Pull Requests Bookmarks Structure

java Interface IcDonanim.java disDonanim.java Sahin.java Soru.java Kare.java Dikdortgen.java GeoMain.java ISekil.java

Notifications Run

```
1 package JavaKonusalSorular.Pratik22_Interfcae.Pr03;
2
3 public class Dikdortgen implements ISekil {
4
5     @Override
6     public int cevresi(int... dizi) {
7         if (dizi.length == 1)
8             return (dizi[0] + dizi[0]) * 2;
9         else
10            return (dizi[0] + dizi[1]) * 2;
11    }
12
13    @Override
14    public int alani(int... dizi) {
15        if ((dizi.length == 1))
16            return dizi[0] * dizi[0];
17        else
18            return dizi[0] * dizi[1];
19    }
20
21 }
```

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (3 minutes ago) 22:1 LF windows-1254 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Cember.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik22\_Interfcae > Pr03 > Cember

Project Commit Pull Requests Bookmarks Structure

Project Runner Git Notifications Run

```
1 package JavaKonusalSorular.Pratik22_Interfcae.Pr03;
2
3 public class Cember implements ISekil {
4
5     @Override
6     public int cevresi(int... dizi) {
7         return (int) (2 * PI * dizi[0] * dizi[0]);
8     }
9
10    @Override
11    public int alani(int... dizi) {
12        return (int) (PI * dizi[0] * dizi[0]);
13    }
14}
15
```

Pratik22\_Interfcae

- > Pr01
- > Pr02
- > Pr03
  - > Cember
  - > Dikdortgen
  - > GeoMain
  - > ISekil
  - > Kare
  - > Soru
- > Pr04
- > Pr05
- > Pr06
- > Pr07

Pratik23\_Iterator

Pratik24\_Set\_HashSet\_Li

Pratik25\_Queue\_Degue

Pratik26\_Maps

Pratik27\_StringManipula

Pratik28\_StringBuilder

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (3 minutes ago) 15:1 LF windows-1254 4 spaces master

The screenshot shows an IDE interface with the following details:

- Menu Bar:** File, Edit, View, Navigate, Code, Refactor, Build, Run, Tools, Git, Window, Help.
- Title Bar:** Java2021allfiles - IMuhendis.java [Java2021allfiles]
- Toolbar:** Includes icons for Project, Git, InterfaceRunner, Run, and Notifications.
- Project Explorer:** Shows a tree view of the project structure. The 'Pratik22\_Interfcae' folder is expanded, showing sub-folders Pr01 through Pr05. The 'Pr05' folder contains files: IMuhendis (selected), Main, and PcMuhendisi.
- Code Editor:** Displays the content of the IMuhendis.java file. The code defines a public interface with four methods:

```
1 package JavaKonusalSorular.Pratik22_Interfcae.Pr05;
2
3 public interface IMuhendis {
4
5     void askerlik_durumu_sorgula();
6
7     String mezuniyet_ortalaması(double derece);
8
9     void adli_sicil_sorgula();
10
11    void is_tecrubesı(String[] array);
12
13}
```
- Bottom Bar:** Git, Debug, TODO, Problems, Terminal, Services, Build.
- Status Bar:** All files are up-to-date (3 minutes ago), 14:1 LF windows-1254 4 spaces, master.

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - PcMuhendisi.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik22\_Interfcae > Pr05 > PcMuhendisi

Project Commit Pull Requests Bookmarks Structure

Notifications Run

```
1 package JavaKonusalSorular.Pratik22_Interfcae.Pr05;
2
3 public class PcMuhendisi implements IMuhendis {
4
5     private boolean askerlik;
6     private boolean adli_sicil;
7
8     public PcMuhendisi(boolean askerlik, boolean adli_sicil) {
9         this.askerlik = askerlik;
10        this.adli_sicil = adli_sicil;
11    }
12
13    @Override
14    public void askerlik_durumu_sorgula() {
15
16        if (askerlik) {
17
18            System.out.println("Askerliğimi yaptım");
19        } else {
20            System.out.println("Askerliğimi yapmadım.");
21        }
22    }
23
24    @Override
25    public String mezuniyet_ortalamasi(double derece) {
26
27        return "Ortalama: " + derece;
28    }
29
30    @Override
31    public void adli_sicil_sorgula() {
32
33        if (adli_sicil) {
34            System.out.println("Adli Sicil Kaydi Bulunuyor.");
35        }
36    }
37}
```

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (4 minutes ago) 30:1 LF UTF-8 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - PcMuhendisi.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik22\_Interfaeae > Pr05 > PcMuhendisi

Project Commit Pull Requests Bookmarks Structure

Notifications Run

```
25  @Override
26  public String mezuniyet_ortalamasi(double derece) {
27
28      return "Ortalama: " + derece;
29  }
30
31  @Override
32  public void adli_sicil_sorgula() {
33
34      if (adli_sicil) {
35          System.out.println("Adli Sicil Kaydi Bulunuyor.");
36      } else {
37          System.out.println("Herhangi bir adli sicil kaydim bulunmuyor.");
38      }
39
40  }
41
42  @Override
43  public void is_tecrubesи(String[] array) {
44
45      System.out.println("Bilgisayar Mühendisi Olarak Su Şirketlerde Çalıştım... ");
46
47      for (int i = 0; i < array.length; i++) {
48          System.out.println(array[i]);
49      }
50
51  }
52
53 }
```

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (4 minutes ago) 54:1 LF UTF-8 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Main.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik22\_Interfcae > Pr05 > Main > main

Project Commit Pull Requests Bookmarks Structure

Project Dikdortgen.java Cember.java PcMuhendisi.java Main.java

Main Run Main

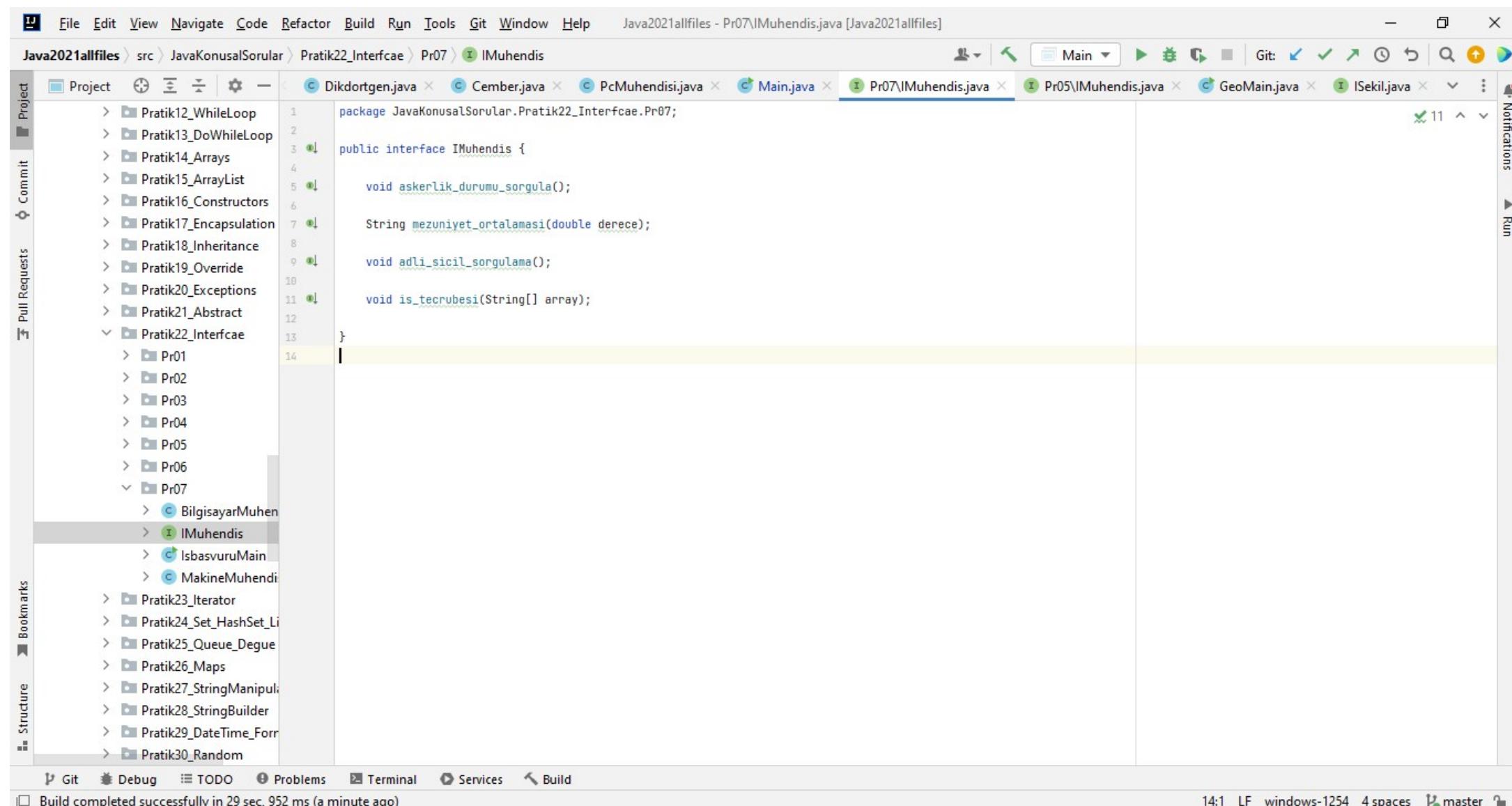
C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Pro Askerliğimi yapmadım. Herhangi bir adlı sicil kaydım bulunmuyor. Ortalamam: 3.07 Bilgisayar Mühendisi Olarak Şu Şirketlerde Çalıştım... Vestel Havelsan Türksat

Process finished with exit code 0

```
1 package JavaKonusalSorular.Pratik22_Interfcae.Pr05;
2
3 public class Main {
4
5     public static void main(String[] args) {
6
7         // IMuhendis muhendis1 = new IMuhendis();
8         // todo Interface den obje oluşturamayız. Sadece referans olabiliriz.
9
10        Pcmuhendisi muhendis1 = new Pcmuhendisi(askerlik: false, adli_sicil: false);
11        // IMuhendis muhendis1 = new Pcmuhendisi(false, false);
12        // todo Burada Interface i referans olduk.
13
14        muhendis1.askerlik_durumu_sorgula();
15        muhendis1.adli_sicil_sorgula();
16
17        System.out.println(muhendis1.mezuniyet_ortalaması(derece: 3.07));
18
19        String[] tecrube = {"Vestel", "Havelsan", "Türksat"};
20        muhendis1.is_tecrubesi(tecrube);
21    }
22}
```

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 29 sec, 952 ms (moments ago) 12:5 LF UTF-8 4 spaces master



File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - BilgisayarMuhendisi.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik22\_Interfcae > Pr07 > BilgisayarMuhendisi > mezuniyet\_ortalaması

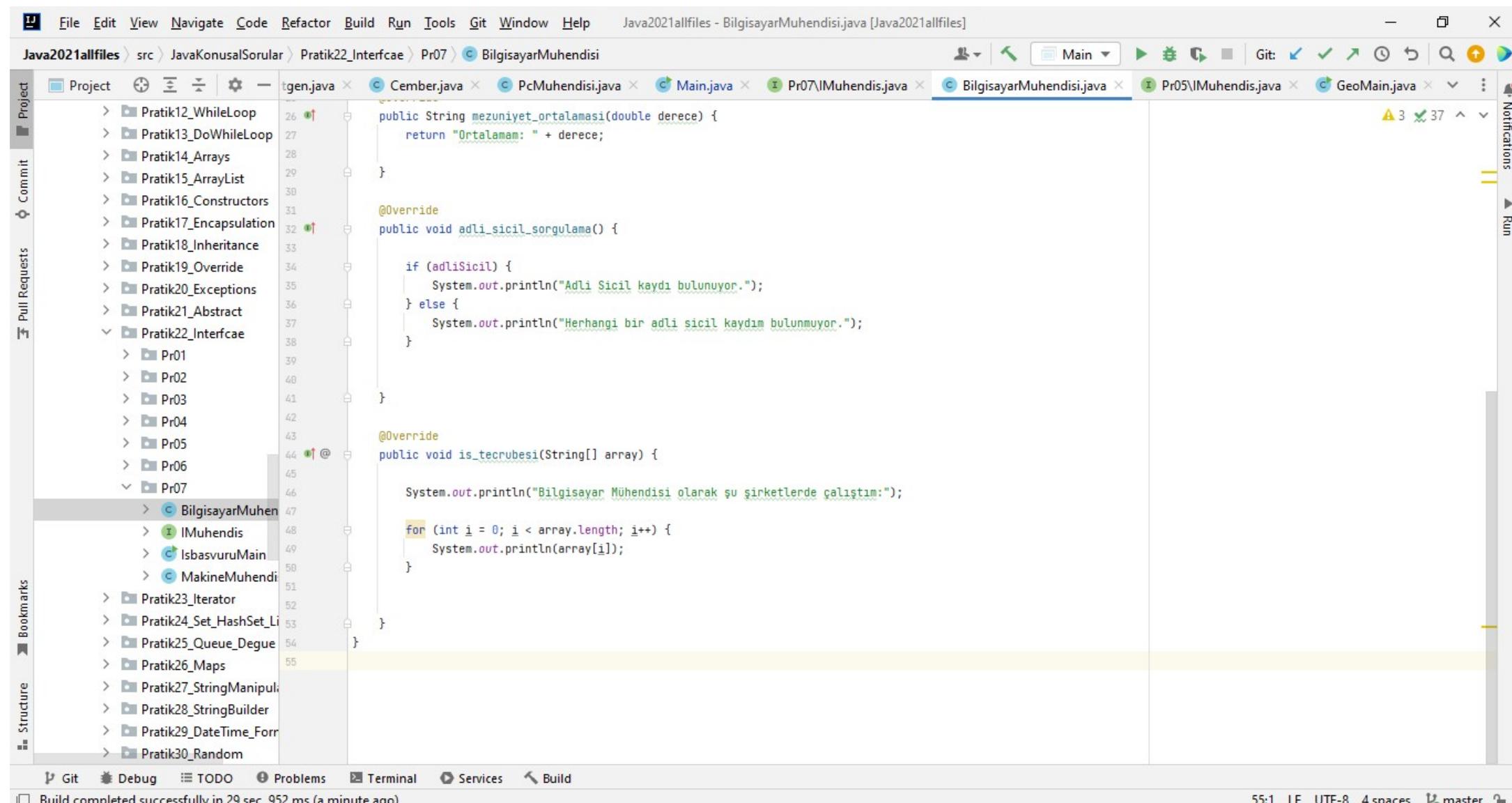
Project Commit Pull Requests Bookmarks Structure

```
1 package JavaKonusalSorular.Pratik22_Interfcae.Pr07;
2
3 public class BilgisayarMuhendisi implements IMuhendis {
4
5     private boolean askerlik;
6     private boolean adliSicil;
7
8     public BilgisayarMuhendisi(boolean askerlik, boolean adliSicil) {
9         this.askerlik = askerlik;
10        this.adliSicil = adliSicil;
11    }
12
13    @Override
14    public void askerlik_durumu_sorgula() {
15
16        if (askerlik) {
17
18            System.out.println("Askerliğimi yaptım");
19        } else {
20            System.out.println("Askerliğimi yapmadım");
21        }
22    }
23
24    @Override
25    public String mezuniyet_ortalaması(double derece) {
26        return "Ortalama: " + derece;
27    }
28
29    @Override
30    public void adli_sicil_sorgulama() {
31
32        if (adliSicil) {
33            System.out.println("Adli Sicil kaydı bulunuyor.");
34        }
35    }
36}
```

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 29 sec, 952 ms (a minute ago)

28:1 LF UTF-8 4 spaces master



File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - MakineMuhendisi.java [Java2021allfiles]

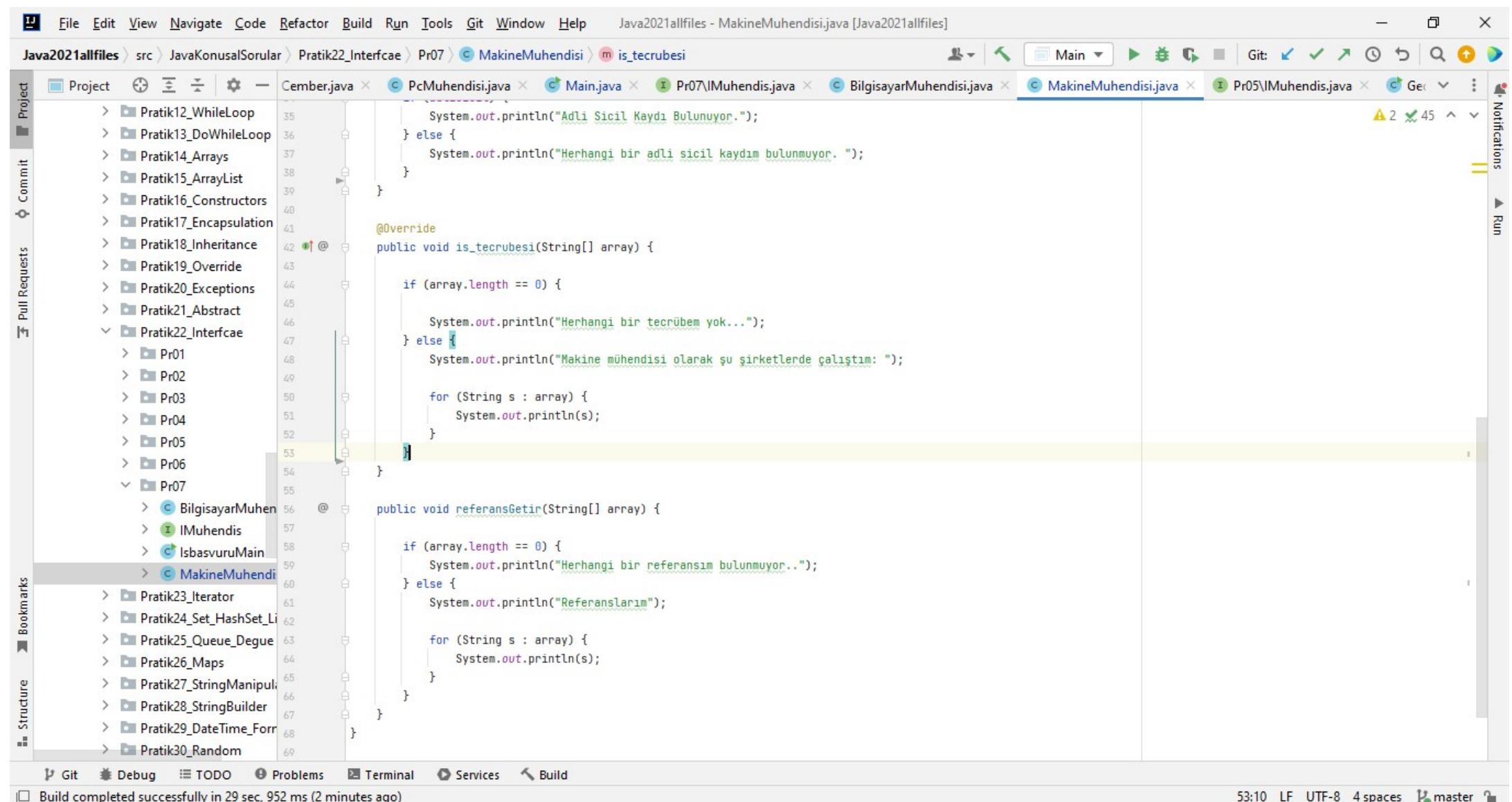
Java2021allfiles > src > JavaKonusalSorular > Pratik22\_Interfcae > Pr07 > MakineMuhendisi > mezuniyet\_ortalaması

Project Commit Pull Requests Bookmarks Structure

```
1 package JavaKonusalSorular.Pratik22_Interfcae.Pr07;
2
3 public class MakineMuhendisi implements IMuhendis {
4
5     private boolean askerlik;
6     private boolean adliSicil;
7
8     public MakineMuhendisi(boolean askerlik, boolean adliSicil) {
9         this.askerlik = askerlik;
10        this.adliSicil = adliSicil;
11    }
12
13    @Override
14    public void askerlik_durumu_sorgula() {
15
16        if (askerlik) {
17
18            System.out.println("Askerliğimi yaptım");
19        } else {
20            System.out.println("Askerliğimi yapmadım");
21        }
22    }
23
24    @Override
25    public String mezuniyet_ortalaması(double derece) {
26
27        return "Ortalama: " + derece;
28    }
29
30    @Override
31    public void adli_sicil_sorgulama() {
32
33        if (adliSicil) {
34            System.out.println("Adli Sicil Kaydi Bulunuyor.");
35        }
36    }
37}
```

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 29 sec, 952 ms (2 minutes ago) 29:6 LF UTF-8 4 spaces master



File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - IsbasvuruMain.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik22\_Interfcae > Pr07 > IsbasvuruMain > main

Project Commit Pull Requests Bookmarks Structure

IsbasvuruMain

IsbasvuruMain.java

Run: IsbasvuruMain

Notifications

Pratik12\_WhileLoop

Pratik13\_DoWhileLoop

Pratik14\_Arrays

Pratik15\_ArrayList

Pratik16\_Constructor

Pratik17\_Encapsulation

Pratik18\_Inheritance

Pratik19\_OVERRIDING

Pratik20\_Exception

Pratik21\_Abstract

Pratik22\_Interfcae

Pr01

Pr02

Pr03

Pr04

Pr05

Pr06

Pr07

BilgisayarMuhendisi

IMuhendis

IsbasvuruMain

MakineMuhendisi

Pratik23\_Iterator

Pratik24\_Set\_HashMap

Pratik25\_Queue

Pratik26\_Maps

Pratik27\_StringManipulation

Pratik28\_StringBuffer

Pratik29\_DateTime

Pratik30\_Random

member.java

PcMuhendisi.java

Main.java

Pr07\IMuhendis.java

IsbasvuruMain.java

1 package JavaKonusalSorular.Pratik22\_Interfcae.Pr07;

2

3 public class IsbasvuruMain {

4

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

6

7 BilgisayarMuhendisi muhendisi1 = new BilgisayarMuhendisi( askerlik: false, adliSicil: false);

8

9 muhendisi1.askerlik\_durumu\_sorgula();

10 muhendisi1.adli\_sicil\_sorgulama();

11 System.out.println(muhendisi1.mezuniyet\_ortalaması( derece: 3.07));

12 String[] tecrube = {"Vestel", "Havelsan", "Türksat", "Denizbank"};

13 muhendisi1.is\_tecrubesi(tecrube);

14

15 System.out.println("-----");

16

17 MakineMuhendisi muhendis2 = new MakineMuhendisi( askerlik: true, adliSicil: true);

18

19 muhendis2.askerlik\_durumu\_sorgula();

20 muhendis2.adli\_sicil\_sorgulama();

21 System.out.println(muhendis2.mezuniyet\_ortalaması( derece: 3.5));

22

23 String[] tecrube2 = {};

24 muhendis2.is\_tecrubesi(tecrube2);

25 muhendis2.referansGetir(tecrube2);

26

27 System.out.println("-----");

28

29 IMuhendis muhendis3 = new BilgisayarMuhendisi( askerlik: false, adliSicil: false);

30 IMuhendis muhendis4 = new MakineMuhendisi( askerlik: false, adliSicil: false);

31

32 }

33}

34}

35}

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\Java\jvisualvm\jvisualvm.jar" -Dfile.encoding=UTF-8 IsbasvuruMain

Askerliğimi yapmadım

Herhangi bir adli sicil kaydım bulunmuyor.

Ortalamam: 3.07

Bilgisayar Mühendisi olarak şu şirketlerde çalıştım:

Vestel

Havelsan

Türksat

Denizbank

-----

Askerliğimi yaptım

Adli Sicil Kaydı Bulunuyor.

Ortalamam: 3.5

Herhangi bir tecrübe yok...

Herhangi bir referansım bulunmuyor..

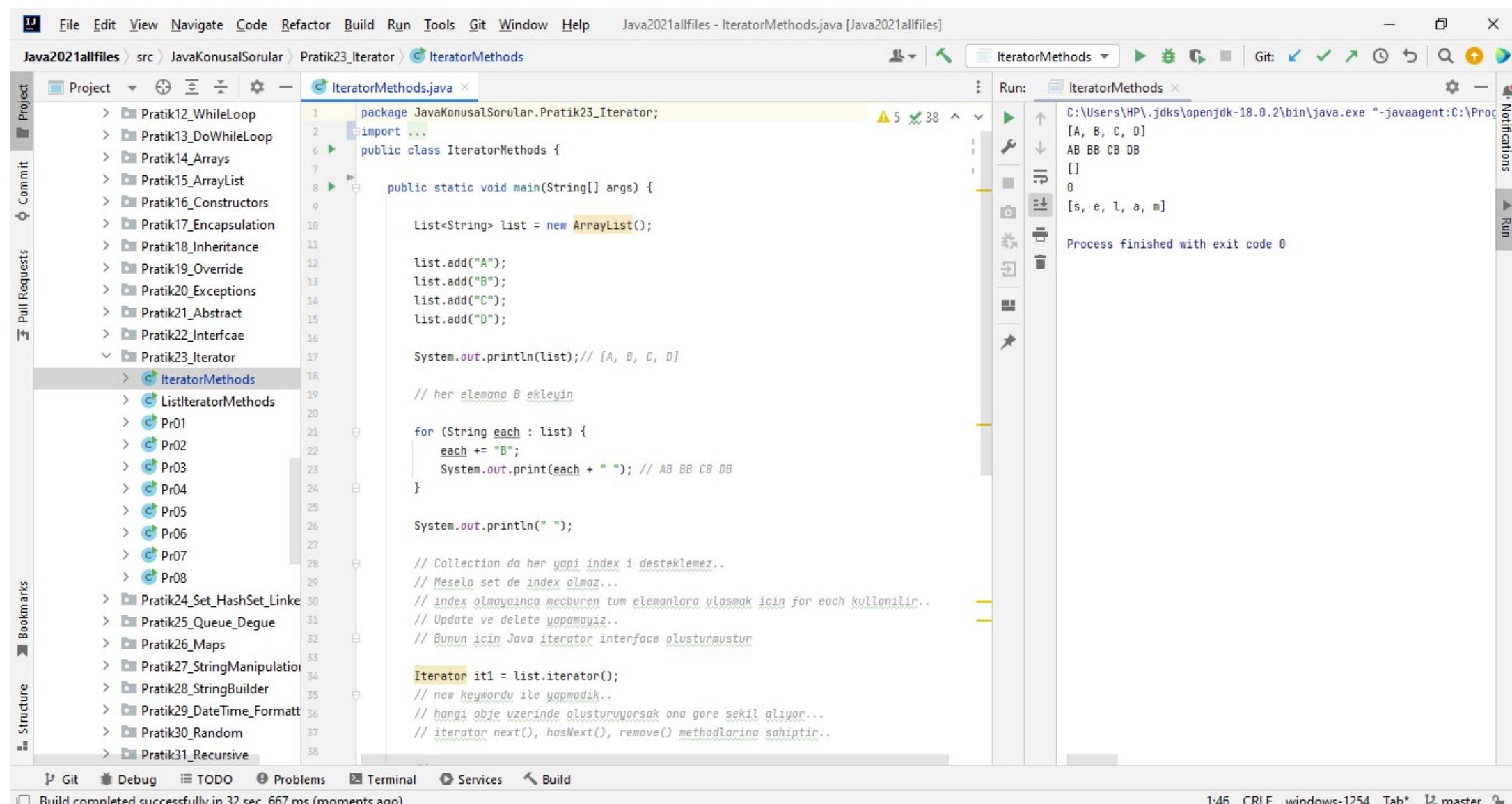
-----

Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 22 sec, 457 ms (moments ago)

27:1 LF UTF-8 4 spaces master



File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - IteratorMethods.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik23\_Iterator > IteratorMethods

Project Commit Pull Requests Bookmarks Structure

IteratorMethods.java

```
33 Iterator it1 = list.iterator();
34 // new keywordu ile yapmadik..
35 // hangi obje üzerinde olusturuyorsak ona gore sekil aliyor...
36 // iterator next(), hasNext(), remove() methodlarina sahiptir..
37
38 // iterator while loop kullanilir..
39 while (it1.hasNext()) {
40     it1.next();
41     it1.remove();
42 }
43 System.out.println(list); // []
44 // ispat icin size ile bakalim uzunluk nedir...
45 System.out.println(list.size()); // 0
46
47
48 List<String> list1 = new ArrayList<>(Arrays.asList("s", "e", "l", "a", "m"));
49
50 Iterator it2=list1.iterator();
51
52 while (it2.hasNext()) {
53     it2.next();
54 }
55 System.out.println(list1); // [s, e, l, a, m]
56 }
```

Run: IteratorMethods

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2021.3.1\lib\idea\_rt.jar" -Dfile.encoding=UTF-8 -jar C:\Users\HP\IdeaProjects\Java2021allfiles\out\artifacts\IteratorMethods\IteratorMethods.jar

[A, B, C, D]  
AB BB CB DB  
[]  
0  
[s, e, l, a, m]

Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 32 sec, 667 ms (a minute ago) 1:46 CRLF windows-1254 Tab\* master

The screenshot shows an IDE interface with the following details:

- Top Bar:** File, Edit, View, Navigate, Code, Refactor, Build, Run, Tools, Git, Window, Help, Java2021allfiles - ListIteratorMethods.java [Java2021allfiles]
- Project Tree:** Java2021allfiles > src > JavaKonusalSorular > Pratik23\_Iterator > ListIteratorMethods
- Code Editor:** The file ListIteratorMethods.java is open. The code implements the ListIterator interface for an ArrayList. It demonstrates the use of hasPrevious() and previous() methods to iterate through the list in reverse order.

```
public class ListIteratorMethods {  
    /*  
     * Tricky --> hasPrevious() ve previous() method'larinin calismasi icin oncesinde  
     * MUTLAKA KESINLIKLE hasNext() ve next(); method'lari calistirilarak cursor(pointer) en sonda getirilmeli  
     * "ITERATOR" ve "LISTITERATOR" arasi farklar :  
  
     * 1) "ITERATOR" sadece hasNext(), next() ve remove() methodlarini icerir  
     * "LISTITERATOR" ise hasNext(), next(), remove(), hasPrevious(), Previous(), add(), set() method'rini icerir.  
  
     * 2) "LISTITERATOR" sadece list'ler cin kullanilir.  
     * "ITERATOR" ise tum collection(list set map) elemanlari icin kullanilir  
  
     * 3) "ITERATOR" sadece ileri gidiyor, "LISTITERATOR" hem ileri hem geri cift yonlu gitmek icin kullanilir.  
    */  
  
    public static void main(String[] args) {  
  
        // 1. ornek...  
        List<String> list = new ArrayList<>(Arrays.asList("t", "a", "r", "i", "k"));  
  
        System.out.println("ilk hali: " + list); // ilk hali: [t, a, r, i, k]  
  
        ListIterator lt1 = list.listIterator();  
        // listiterator interefaceden lt1 variable creat edildi. Degeri listten assingn edildi...  
  
        while (lt1.hasNext()) {  
            String depo = (String) lt1.next();  
            lt1.set(depo + "-");  
        }  
        System.out.println("Update hali : " + list);  
        // update hali : [t:-), a:-), r:-), i:-), k:-])  
    }  
}
```

- Run Tab:** Shows the output of the run command:  
C:\Users\HP\jdks\openjdk-18.0.2\bin\java.exe -  
ilk hali: [t, a, r, i, k]  
Update hali : [t:-), a:-), r:-), i:-), k:-])  
Listenin ilk hali list1 : [s, e, l, a, m]  
:-)m a l e s  
[s, e, l, a, :-)m]  
[s, e, l, a, :-)m, e, t]  
Process finished with exit code 0
- Bottom Status Bar:** Git, Debug, TODO, Problems, Terminal, Services, Build, 26:45, CRLF, windows-1254, Tab\*, master

The screenshot shows an IDE interface with the following details:

- File Bar:** File, Edit, View, Navigate, Code, Refactor, Build, Run, Tools, Git, Window, Help.
- Project Bar:** Java2021allfiles > src > JavaKonusalSorular > Pratik23\_Iterator > ListIteratorMethods > main.
- Code Editor:** The current file is ListIteratorMethods.java. The code demonstrates the use of ListIterator to traverse and modify a list of strings.

```
Pratik12:44 // 2. ornek...
Pratik13:45 List<String> list1 = new ArrayList<>(Arrays.asList("s", "e", "l", "a", "m"));
Pratik14:46 // son elemanina :-) ile update ediniz, elemanlarini sondan basa dogru yazdiririniz --> :-)
Pratik15:47 m a l e s
Pratik16:48 System.out.println("Listenin ilk hali list1 : " + list1);
Pratik17:49 // Listenin ilk hali list1 : [s, e, l, a, m]
Pratik18:50
Pratik19:51 ListIterator lt2 = list1.listIterator();
Pratik20:52 // ListIterator interfaceden lt1 variable creat edildi. Degeri listten assingn edildi...
Pratik21:53
Pratik22:54 while (lt2.hasNext()) {
Pratik23:55     String depo = (String) lt2.next();
Pratik24:56
Pratik25:57         if (!lt2.hasNext()) {
Pratik26:58             lt2.set(":-)" + depo);
Pratik27:59         }
Pratik28:60     }
Pratik29:61
Pratik30:62     // tersten yazdirirsak
Pratik31:63 while (lt2.hasPrevious()) {
Pratik32:64     String depo = (String) lt2.previous();
Pratik33:65     // Cursorun(imlecini) oncesi elemani return eder. Ve cursoru(imleci) oncesine getirir
Pratik34:66     System.out.print(depo + " ");
Pratik35:67     // :-)m a l e s
Pratik36:68 }
Pratik37:69 System.out.println();
Pratik38:70 System.out.println(list1);
Pratik39:71 // [m, e, l, i, h, :-)a]
Pratik40:72
Pratik41:73     list1.add("e");
Pratik42:74     list1.add("t");
Pratik43:75     System.out.println(list1);
Pratik44:76 }
```

- Run Tab:** Shows the command used to run the application: C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe ".
- Output Area:** Displays the console output:
  - ilk hali: [t, a, r, i, k]
  - Update hali : [t:-), a:-), r:-), i:-), k:-)]
  - Listenin ilk hali list1 : [s, e, l, a, m]
  - :-)m a l e s
  - [s, e, l, a, :-)m]
  - [s, e, l, a, :-)m, e, t]Followed by "Process finished with exit code 0".
- Side Panels:** Project, Commit, Pull Requests, Bookmarks, Structure, Git, Debug, TODO, Problems, Terminal, Services, Build.
- Status Bar:** Build completed successfully in 13 sec, 320 ms (2 minutes ago). 76:35 CRLF windows-1254 Tab\*. master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr01.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik23\_Iterator > Pr01 > main

Project Commit Pull Requests Bookmarks Structure

IteratorMethods.java ListIteratorMethods.java Pr01.java

Run: Pr01

Notifications

Pratik12  
Pratik13  
Pratik14  
Pratik15  
Pratik16  
Pratik17  
Pratik18  
Pratik19  
Pratik20  
Pratik21  
Pratik22  
Pratik23  
Pratik24  
Pratik25  
Pratik26  
Pratik27  
Pratik28  
Pratik29  
Pratik30  
Pratik31

Pratik12  
Pratik13  
Pratik14  
Pratik15  
Pratik16  
Pratik17  
Pratik18  
Pratik19  
Pratik20  
Pratik21  
Pratik22  
Pratik23  
Pratik24  
Pratik25  
Pratik26  
Pratik27  
Pratik28  
Pratik29  
Pratik30  
Pratik31

```
1 package JavaKonusalSorular.Pratik23_Iterator;
2 import ...
3 public class Pr01 {
4     public static void main(String[] args) {
5
6         List <String> list = new ArrayList();
7         list.add("A");
8         list.add("B");
9         list.add("C");
10        list.add("D");
11        System.out.println(list); // [A, B, C, D]
12
13        // her elemana B ekleyin
14        for (String each : list) {
15            each+= "B";
16            System.out.print(each + " "); // AB BB CB DB
17        }
18
19        System.out.println(" ");
20        // Collection da her yapi index i desteklemez..
21        // Mesela set de index olmaz... index olmayinca mecburen tum elemanlara ulasmak icin for each kullanilir..
22        // Update ve delete yapamayiz.. Bunun icin Java iterator interface olusturmustur
23
24        Iterator it1=list.iterator(); // new keywordu ile yapmadik..
25        // hangi obje üzerinde olusturuyorsak ona gore sekil aliyor...
26        // iterator next(), hasNext(), remove() methodlarina sahiptir..
27        // iterator while loop kullanilir..
28        while (it1.hasNext()) {
29            it1.next();
30            it1.remove();
31        }
32
33        System.out.println(list); // []
34        // ispot icin size ile bakalim uzunluk nedir...
35        System.out.println(list.size()); // 0
36    }
37 }
```

Run: C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "[A, B, C, D]" AB BB CB DB [] 0

Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 6 sec, 163 ms (moments ago) 33:10 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr02.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik23\_Iterator > Pr02

Project Commit Pull Requests Bookmarks Structure

IteratorMethods.java ListIteratorMethods.java Pr01.java Pr02.java

Run: Pr02

Notifications Run

```
1 package JavaKonusalSorular.Pratik23_Iterator;
2
3 import ...
4
5 public class Pr02 {
6
7     public static void main(String[] args) {
8         List <String> list = new ArrayList();
9
10        list.add("A");
11        list.add("B");
12        list.add("C");
13        list.add("D");
14
15        System.out.println(list); // [A, B, C, D]
16
17        // her elemde B ekleyin
18
19        ListIterator li1=list.listIterator();
20
21        while (li1.hasNext()) {
22
23            String temp = (String) li1.next();
24            li1.set(temp+"B");
25
26        }
27        System.out.println(list); // [AB, BB, CB, DB]
28
29    }
30
31
32 }
```

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (moments ago)

31:1 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr03.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik23\_Iterator > Pr03 > main

Project Commit Pull Requests Bookmarks Structure

IteratorMethods.java ListIteratorMethods.java Pr01.java Pr02.java Pr03.java

Run: Pr03

Notifications Run

```
1 package JavaKonusalSorular.Pratik23_Iterator;
2 import ...
3 public class Pr03 {
4
5     public static void main(String[] args) {
6         /* Bir listedeki istenen sayı aralığında olmayan elementleri silen bir program yazınız...
7          * (2. liste oluşturmadan, geçerli liste üzerinde işlem yapınız)
8          * Örn : [2,13,56,23,45,14,40] istenen aralık 20 ile 40 arası (sinirlar dahil)
9          * output: [23,40] */
10
11
12     List<Integer> sayiListesi = new ArrayList<>();
13
14     sayiListesi.add(2);
15     sayiListesi.add(13);
16     sayiListesi.add(56);
17     sayiListesi.add(23);
18     sayiListesi.add(45);
19     sayiListesi.add(14);
20     sayiListesi.add(40);
21
22     ListIterator li1=sayiListesi.listIterator();
23
24
25     while (li1.hasNext()) {
26
27         int temp=(int) li1.next();
28         if (temp<20 || temp>40) {
29             li1.remove();
30         }
31         System.out.println(sayiListesi); // [23, 40]
32     }
33
34 }
35
36 }
```

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "C:\Users\HP\OneDrive\Yüklenen Dosya\Java2021allfiles\src\JavaKonusalSorular\Pratik23\_Iterator\Pr03" [13, 56, 23, 45, 14, 40] [56, 23, 45, 14, 40] [23, 45, 14, 40] [23, 45, 14, 40] [23, 14, 40] [23, 40] [23, 40]

Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (moments ago) 28:39 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr04.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik23\_Iterator > Pr04 > main

Project Commit Pull Requests Bookmarks Structure

IteratorMethods.java ListIteratorMethods.java Pr01.java Pr02.java Pr03.java Pr04.java

Run: Pr04

Notifications

Pratik12  
Pratik13  
Pratik14  
Pratik15  
Pratik16  
Pratik17  
Pratik18  
Pratik19  
Pratik20  
Pratik21  
Pratik22  
Pratik23  
Pratik24  
Pratik25  
Pratik26  
Pratik27  
Pratik28  
Pratik29  
Pratik30  
Pratik31

```
1 package JavaKonusalSorular.Pratik23_Iterator;
2 import ...
3 public class Pr04 {
4     public static void main(String[] args) {
5         // [2,13,56,23,45,14,40] istenen listeyi iterator kullanarak sondan basa doğru sırala...
6
7         List<Integer> sayiListesi = new ArrayList<>();
8
9         sayiListesi.add(2);
10        sayiListesi.add(13);
11        sayiListesi.add(56);
12        sayiListesi.add(23);
13        sayiListesi.add(45);
14        sayiListesi.add(14);
15        sayiListesi.add(40);
16
17        System.out.println(sayiListesi); // [2, 13, 56, 23, 45, 14, 40]
18
19        // sondan basa doğru sıralayın...
20        ListIterator li1 = sayiListesi.listIterator();
21
22        while (li1.hasNext()) {
23            li1.next(); // bu sona gitmeyi sağlayacak ve aşağıdaki while da tersten sıralayacak
24        }
25
26        while (li1.hasPrevious()) {
27            System.out.print(li1.previous() + " ");
28        }
29
30        System.out.println(" ");
31        System.out.println(sayiListesi); // [2, 13, 56, 23, 45, 14, 40]
32
33    }
34
35}
```

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (moments ago)

33:72 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr05.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik23\_Iterator > Pr05 > main

Project Commit Pull Requests Bookmarks Structure

Pr05.java

Run: Pr05

Notifications Run

```
public class Pr05 {
    public static void main(String[] args) {
        List<String> l1 = new ArrayList<>(Arrays.asList("z", "e", "h", "r", "a"));
        System.out.println("listin ilk hali " + l1);

        //l1 elemanlını for loop kullanarak yazdırınız...
        for (int i = 0; i < l1.size(); i++) {
            System.out.print(l1.get(i) + " ");
        }
        System.out.println();
        System.out.println("*****");
        //l1 elemanlarını for each kullanarak yazdırınız...
        for (String w : l1) {
            System.out.print(w + " ");
        }
        System.out.println();
        System.out.println("*****");
        //l1 elemanlarını for loop kullanarak her elemanın yanına :-) yazdırıp update yapıniz

        for (int i = 0; i < l1.size(); i++) {
            System.out.print(l1.get(i) + ":");
        }
        System.out.println();
        System.out.println("-: sonrasi l1" + l1); //for loop ile l1 elemanları :-) concat edildiği halde
        // l1 degismedi update edilmedi

        List<String> l2 = new ArrayList<>(Arrays.asList("s", "a", "i", "d"));
        Iterator it1 = l2.iterator(); //Iterator it1 variable creat edildi it1 obj degildir. interface'den obj olmaz
        while (it1.hasNext()) {
            it1.next();
            it1.remove();
        }
        System.out.println("l2 nin iterator sonrasi:" + l2); //l2 nin iterator sonrasi: []
    }
}
```

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "."
listin ilk hali [z, e, h, r, a]
z e h r a
\*\*\*\*\*
z e h r a
\*\*\*\*\*
z:-)e:-)h:-)r:-)a:-)
:-) sonrasi l1[z, e, h, r, a]
l2 nin iterator sonrasi:[]

Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 8 sec, 690 ms (moments ago)

12:1 LF windows-1254 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr06.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik23\_Iterator > Pr06

Project Commit Pull Requests Bookmarks Structure

Pr01.java Pr02.java Pr03.java Pr04.java Pr05.java Pr06.java

Run: Pr05

Notifications Run

```
1 package JavaKonusalSorular.Pratik23_Iterator;
2 import ...
3 public class Pr06 {
4     public static void main(String[] args) {
5
6         List<String> list = new ArrayList<>(Arrays.asList("t", "a", "r", "i", "k"));
7         System.out.println("ilk hali: " + list);
8
9         ListIterator lt1 = list.listIterator();
10        //listiterator interfaceden lt1 variable creat edildi. degerini listten assingn edildi
11        while (lt1.hasNext()) {
12
13            String depo = (String) lt1.next();
14
15            lt1.set(depo + "-"); //list elemanlarini update etti
16
17        }
18        System.out.println("update hali : " + list);
19
20        List<String> list1 = new ArrayList<>(Arrays.asList("m", "e", "l", "i", "h", "a"));
21        //son elemanina -- ile update ediniz, elemanlarini sondan basa dogru yazdiriniz--> -- a h i l e m
22        System.out.println("ilk hali: " + list1);
23        ListIterator lt2 = list1.listIterator(); //listiterator interfaceden lt1 variable creat edildi.
24        // degerini listten assingn edildi
25
26        while (lt2.hasNext()) {
27            String depo = (String) lt2.next();
28            if (!lt2.hasNext()) {
29                lt2.set("--" + depo);
30            }
31        }
32        while (lt2.hasPrevious()) {
33            String depo = (String) lt2.previous(); //kursorun oncesi elemani return eder. ve cursoru oncesine getirir
34            System.out.print(depo + " "); //-- a h i l e m
35        }
36    }
37}
38}
```

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "."
listin ilk hali [z, e, h, r, a]
z e h r a
\*\*\*\*\*
z e h r a
\*\*\*\*\*
z:-)e:-)h:-)r:-)a:-)
:-) sonrası l1[z, e, h, r, a]
l2 nin iterator sonrası:[]

Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 8 sec, 690 ms (a minute ago)

12:1 LF UTF-8 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr06.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik23\_Iterator > Pr06

Project Commit Pull Requests Bookmarks Structure

Pr05

Pr06.java

Run: Pr05

Notifications

Pr06.java

```
29     while (lt2.hasNext()) {
30         String depo = (String) lt2.next();
31         if (!lt2.hasNext()) {
32             lt2.set(":-)" + depo);
33         }
34     }
35     while (lt2.hasPrevious()) {
36         String depo = (String) lt2.previous(); //kursorun oncesi elemani return eder. ve cursoru oncesine getirir
37         System.out.print(depo + " "); //:-)a h i l e m
38     }
39     */
40     trick --> hasPrevious() ve previous() method'larinin calismasi icin oncesinde
41     MUTLAKA KESINLIKLE hasNext() ve next();method'lari calistirilarak cursor(pointer) en sona getirilmeli
42
43     "ITERATOR" ve "LISTITERATOR" arasi farklar :
44
45     1) "ITERATOR" sadece hasNext(), next() ve remove() methodlarini icerir
46        "LISTITERATOR" ise hasNext(), next(),remove(), hasPrevious(), Previous(), add(); set() method'rini icerir.
47
48     2) "LISTITERATOR" sadece list'ler cin kullanilir.
49        "ITERATOR" ise tum collection(list set map) elemanlari icin kullanilir
50
51     3) "ITERATOR" sadece ileri gidiyor, "LISTITERATOR" hem ileri hem geri cift yonlu gitmek icin kullanilir.
52
53     */
54     System.out.println();
55     System.out.println(list1); //[[m, e, l, i, h, :-)a]
56 }
```

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "."
listin ilk hali [z, e, h, r, a]
z e h r a
\*\*\*\*\*
z e h r a
\*\*\*\*\*
z:-)e:-)h:-)r:-)a:-)
:-) sonrasi l1[z, e, h, r, a]
l2 nin iterator sonrasi:[]

Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 8 sec, 690 ms (a minute ago)

12:1 LF UTF-8 4 spaces master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pr07.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik23\_Iterator > Pr07

Project Commit Pull Requests Bookmarks Structure

Methods.java × Pr01.java × Pr02.java × Pr03.java × Pr04.java × Pr05.java × Pr06.java × Pr07.java × Run: Pr07 ×

Pr07.java

```
1 package JavaKonusalSorular.Pratik23_Iterator;
2 import ...
3 public class Pr07 {
4     public static void main(String[] args) {
5         List<String> list = new ArrayList<>(Arrays.asList("t", "a", "r", "i", "k"));
6         System.out.println("Listin ilk hali : " + list); // Listin ilk hali : [t, a, r, i, k]
7
8         // for ile
9         for (int i = 0; i < list.size(); i++) {
10             System.out.print(list.get(i)+ " "); // t a r i k
11         }
12         System.out.println(" ");
13
14         // for each ile
15         for (String w : list) {
16             System.out.print(w + " "); // t a r i k
17         }
18         System.out.println(" ");
19
20         // list elemanlarini kullanarak :) gulen surati koyunuz..
21         for (int i = 0; i < list.size(); i++) {
22             System.out.print(list.get(i)+ ":")); // t:)a:)r:)i:)k:)
23         }
24         System.out.println(" ");
25         System.out.println(list); // [t, a, r, i, k]
26         // list degisikliklerden sonra da hala gunci...
27
28         List<String> list1 = new ArrayList<>(Arrays.asList("t", "a", "r", "i", "k"));
29         Iterator<String> it1=list1.iterator();
30         while (it1.hasNext()) {
31             it1.next();
32             it1.remove();
33         }
34         System.out.println(list1); // []
35     }
36 }
37 }
```

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "
Listin ilk hali : [t, a, r, i, k]
t a r i k
t a r i k
t:)a:)r:)i:)k:)
[t, a, r, i, k]
[]

Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 9 sec, 968 ms (moments ago)

10:1 CRLF windows-1254 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - CollectionsSetMethods.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik24\_Set\_HashSet\_Linked > CollectionsSetMethods

CollectionsSetMethods

Project Commit Pull Requests Bookmarks Structure

Pr03.java Pr04.java Pr05.java Pr06.java Pr07.java Pr08.java CollectionsSetMethods.java

Run: CollectionsSetMethods

Notifications

```
1 package JavaKonusalSorular.Pratik24_Set_HashSet_Linked;
2 import ...
3 public class CollectionsSetMethods {
4     public static void main(String[] args) {
5
6         Set<String> set1 = new HashSet<>();
7
8         // Set kume mantigiyla calistigi icin tekrarli elaman kabul etmez..
9         // Ayni elemani yeni elaman olarak eklediginizde ilkini siler ve yenisini kabul eder...
10
11        // 1-add() methodu ; Set e eleman ekler
12        set1.add("F");
13        set1.add("A");
14        set1.add("B");
15        set1.add("C");
16        set1.add("X");
17        set1.add("Y");
18        System.out.println("1-add methodu : " + set1);
19        // 1-add methodu : [A, B, C, F, X, Y]
20
21        // 2-addAll(coll); istenen collection in tum elemanlarini eklen
22        // Yeni bir collections oluturup set1 e ekleme yapalim...
23
24        Set<String> set2 = new HashSet<>(Arrays.asList("1","2","3"));
25
26        System.out.println("Set2 Collection : " + set2);
27        // Set2 Collection : [1, 2, 3]
28
29        set1.addAll(set2);
30        System.out.println("2-addAll methodu : " + set1);
31        // 2-addAll methodu : [A, 1, B, 2, C, 3, F, X, Y]
```

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "."
1-add methodu : [A, B, C, F, X, Y]
Set2 Collection : [1, 2, 3]
2-addAll methodu : [A, 1, B, 2, C, 3, F, X, Y]
3-clear() methodu : []
4-contains(eleman) methodu : true
5-containsAll(coll) methodu : false
5-containsAll(coll) methodu : true
6-equals(set) methodu : true
6-equals(set) methodu : false
7-isEmpty() methodu : true
7-isEmpty() methodu : false
8-remove methodu : [1, 3]
9-removeAll(coll) methodu : true
9-removeAll(coll) methodundan sonra : []
10-size() methodu : 9
10-size() methodu : 0
10-size() methodu : 0
10-size() methodu : 3
[1, 2, 3]
[1, 2, 3]

Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 6 sec, 506 ms (today 13:49)

5:37 CRLF UTF-8 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - CollectionsSetMethods.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik24\_Set\_HashSet\_Linked > CollectionsSetMethods

CollectionsSetMethods

Project Commit Pull Requests Bookmarks Structure

Pr03.java Pr04.java Pr05.java Pr06.java Pr07.java Pr08.java CollectionsSetMethods.java

Run: CollectionsSetMethods

Notifications Run

```
// 3-clear() methodu ; Tum elemanlari siler
set2.clear();
System.out.println("3-clear() methodu : " + set2);
// 3-clear() methodu : []

// 4-contains(eleman) methodu ; istenen eleman set te varsa true, yoksa false dondurur
set1.contains("X");
System.out.println("4-contains(eleman) methodu : " + set1.contains("X"));
// 4-contains(eleman) methodu : true

// 5-containsAll(coll) methodu ; istenen coll in tumu aranan sette var ise true, yoksa false dondurur
System.out.println("5-containsAll(coll) methodu : " + set1.containsAll(set2));
// 5-containsAll(coll) methodu : false

Set<String> set3 = new HashSet<>(Arrays.asList("1","2","3"));
Set<String> set4 = new HashSet<>(Arrays.asList("1","2","3"));

System.out.println("5-containsAll(coll) methodu : " + set3.containsAll(set4));
// 5-containsAll(coll) methodu : true

// 6-equals(set) methodu ; istenen set le tum elemanlar ayni ise true, yoksa false dondurur
System.out.println("6-equals(set) methodu : " + set3.equals(set4)); // true
// 6-equals(set) methodu : true

System.out.println("6-equals(set) methodu : " + set1.equals(set3));
// 6-equals(set) methodu : false
```

Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 6 sec, 506 ms (today 13:49)

5:37 CRLF UTF-8 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - CollectionsSetMethods.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik24\_Set\_HashSet\_Linked > CollectionsSetMethods

CollectionsSetMethods

Run: CollectionsSetMethods

Project Commit Pull Requests Bookmarks Structure

Pr03.java Pr04.java Pr05.java Pr06.java Pr07.java Pr08.java CollectionsSetMethods.java

1-add methodu : [A, B, C, F, X, Y]  
Set2 Collection : [1, 2, 3]  
2-addAll methodu : [A, 1, B, 2, C, 3, F, X, Y]  
3-clear() methodu : []  
4-contains(eleman) methodu : true  
5-containsAll(coll) methodu : false  
5-containsAll(coll) methodu : true  
6-equals(set) methodu : true  
6-equals(set) methodu : false  
7-isEmpty() methodu : true  
7-isEmpty() methodu : false  
8-remove methodu : [1, 3]  
9-removeAll(coll) methodu : true  
9-removeAll(coll) methodu : true  
10-size() methodu : 9  
10-size() methodu : 0  
10-size() methodu : 0  
10-size() methodu : 3  
[1, 2, 3]  
[1, 2, 3]

Process finished with exit code 0

```
// 7-isEmpty() methodu ; Sette hic eleman yoksa true, varsa false dondurur
System.out.println("7-isEmpty() methodu : " + set2.isEmpty());
// 7-isEmpty() methodu : true

System.out.println("7-isEmpty() methodu : " + set4.isEmpty());
// 7-isEmpty() methodu : false

// 8-remove(eleman) methodu ; istenen eleman bulursa siler ve true dondurur, bulamazsa false dondurur
set3.remove("2");
System.out.println("8-remove methodu : " + set3);
// 8-remove methodu : [1, 3]

// 9-removeAll(coll) methodu ; coll'din tum elemanlarini bulursa siler ve true dondurur, bulamazsa false dondurur
System.out.println("9-removeAll(coll) methodu : " + set3.removeAll(set4));
// 9-removeAll(coll) methodu : true
System.out.println("9-removeAll(coll) methodundan sonra : " + set3); // []

// 10-size() methodu ; set'in eleman sayisini verir
System.out.println("10-size() methodu : " + set1.size());
// 10-size() methodu : 9

System.out.println("10-size() methodu : " + set2.size());
// 10-size() methodu : 0

System.out.println("10-size() methodu : " + set3.size());
// 10-size() methodu : 0
```

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 6 sec, 506 ms (today 13:49) 5:37 CRLF UTF-8 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - CollectionsSetMethods.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik24\_Set\_HashSet\_Linked > CollectionsSetMethods > main

CollectionsSetMethods

Project Commit Pull Requests Bookmarks Structure

Pr03.java Pr04.java Pr05.java Pr06.java Pr07.java Pr08.java CollectionsSetMethods.java

Run: CollectionsSetMethods

Notifications

```
// 7-isEmpty() methodu ; Sette hic eleman yoksa true, varsa false dondurur
77 System.out.println("7-isEmpty() methodu : " + set2.isEmpty());
78 // 7-isEmpty() methodu : true
79
80 System.out.println("7-isEmpty() methodu : " + set4.isEmpty());
81 // 7-isEmpty() methodu : false
82
83 // 8-remove(eleman) methodu ; istenen eleman bulursa siler ve true dondurur, bulamazsa false dondurur
84 set3.remove("2");
85 System.out.println("8-remove methodu : " + set3);
86 // 8-remove methodu : [1, 3]
87
88 // 9-removeAll(coll) methodu ; coll nin tum elemanlarini bulursa siler ve true dondurur, bulamazsa false dondurur
89 System.out.println("9-removeAll(coll) methodu : " + set3.removeAll(set4));
90 // 9-removeAll(coll) methodu : true
91 System.out.println("9-removeAll(coll) methodundan sonra : " + set3); // []
92
93
94 // 10-size() methodu ; set in eleman sayisini verir
95
96 System.out.println("10-size() methodu : " + set1.size());
97 // 10-size() methodu : 9
98
99 System.out.println("10-size() methodu : " + set2.size());
100 // 10-size() methodu : 0
101
102 System.out.println("10-size() methodu : " + set3.size());
103 // 10-size() methodu : 0
```

Run: C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe .
1-add methodu : [A, B, C, F, X, Y]
Set2 Collection : [1, 2, 3]
2-addAll methodu : [A, 1, B, 2, C, 3, F, X, Y]
3-clear() methodu : []
4-contains(eleman) methodu : true
5-containsAll(coll) methodu : false
5-containsAll(coll) methodu : true
6-equals(set) methodu : true
6-equals(set) methodu : false
7-isEmpty() methodu : true
7-isEmpty() methodu : false
8-remove methodu : [1, 3]
9-removeAll(coll) methodu : true
9-removeAll(coll) methodundan sonra : []
10-size() methodu : 9
10-size() methodu : 0
10-size() methodu : 0
10-size() methodu : 3
[1, 2, 3]
[1, 2, 3]

Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 6 sec, 506 ms (today 13:49)

94:45 CRLF UTF-8 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - CollectionsSetMethods.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik24\_Set\_HashSet\_Linked > CollectionsSetMethods > main

CollectionsSetMethods

Project Commit Pull Requests Bookmarks Structure

Pr03.java Pr04.java Pr05.java Pr06.java Pr07.java Pr08.java CollectionsSetMethods.java

Run: CollectionsSetMethods

Notifications Run

```
// 10-size() methodu ; set in eleman sayisini verir
System.out.println("10-size() methodu : " + set1.size());
// 10-size() methodu : 9

System.out.println("10-size() methodu : " + set2.size());
// 10-size() methodu : 0

System.out.println("10-size() methodu : " + set3.size());
// 10-size() methodu : 0

System.out.println("10-size() methodu : " + set4.size());
// 10-size() methodu : 3

// 11-retainAll() methodu : ornegin set1 de calisir set2 deki elemanlari tutar ve set2 de olmayanlari siler.
set1.retainAll(set4);
System.out.println(set1); // [1, 2, 3]
System.out.println(set4); // [1, 2, 3]
// set1 ve set 4 u ayni elemanlar oldugu surece Ayni standarda getirir.
```

1-add methodu : [A, B, C, F, X, Y]  
Set2 Collection : [1, 2, 3]  
2-addAll methodu : [A, 1, B, 2, C, 3, F, X, Y]  
3-clear() methodu : []  
4-contains(eleman) methodu : true  
5-containsAll(coll) methodu : false  
5-containsAll(coll) methodu : true  
6-equals(set) methodu : true  
6-equals(set) methodu : false  
7-isEmpty() methodu : true  
7-isEmpty() methodu : false  
8-remove methodu : [1, 3]  
9-removeAll(coll) methodu : true  
9-removeAll(coll) methodundan sonra : []  
10-size() methodu : 9  
10-size() methodu : 0  
10-size() methodu : 0  
10-size() methodu : 3  
[1, 2, 3]  
[1, 2, 3]

Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 6 sec, 506 ms (today 13:49)

94:45 CRLF UTF-8 Tab\* master

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pratik24\_Set\_HashSet\_Linked\Pr01.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik24\_Set\_HashSet\_Linked > Pr01 > main

Project Commit Pull Requests Bookmarks Structure

Pr06.java X Pr07.java X Pr08.java X CollectionsSetMethods.java X Pratik24\_Set\_HashSet\_Linked\Pr01.java X Run: Pr01 X

Notifications Run

```
package JavaKonusalSorular.Pratik24_Set_HashSet_Linked;
import ...
public class Pr01 {

    public static void main(String[] args) {
        // linked bagli demekti..
        // linked list te ise her eleman birbirine tren gibi baglidir...
        // head --> ilk eleman headdir. sadece adres icerir... son eleman null i point eder...
        // node --> adres ve value den olusur..
        // collections da obje olustururken collections in class mi yoksa interface mi olduguna bakmaliyiz..
        // list olustururken constructor ArrayList olusturuyorduk..

        List<String> list = new ArrayList<>();
        list.add("X");
        list.add("Y");

        LinkedList<String> ll1 = new LinkedList();

        ll1.add("A");
        ll1.add("B");
        System.out.println(ll1); // [A, B]
        ll1.add( index: 1, element: "C");
        System.out.println(ll1); // [A, C, B]
        ll1.addAll(list);
        System.out.println(ll1); // [A, C, B, X, Y]

        ll1.addAll( index: 2, list);
        System.out.println(ll1); // [A, C, X, Y, B, X, Y]

        ll1.addLast( e: "K");
        System.out.println(ll1); // [A, C, X, Y, B, X, Y, K]

        ll1.addFirst( e: "D");
        System.out.println(ll1); // [D, A, C, X, Y, B, X, Y, K]
    }
}
```

C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe " [A, B] [A, C, B] [A, C, B, X, Y] [A, C, X, Y, B, X, Y] [A, C, X, Y, B, X, Y, K] [D, A, C, X, Y, B, X, Y, K] Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

Build completed successfully in 8 sec, 271 ms (a minute ago) 32:26 CRLF windows-1254 Tab\* master

The screenshot shows an IDE interface with the following details:

- File Menu:** File, Edit, View, Navigate, Code, Refactor, Build, Run, Tools, Git, Window, Help.
- Title Bar:** Java2021allfiles - Pratik24\_Set\_HashSet\_Linked\Pr02.java [Java2021allfiles]
- Toolbar:** Includes icons for Git, Debug, TODO, Problems, Terminal, Services, and Build.
- Project Explorer:** Shows a tree view of Java files under the package JavaKonusalSorular.Pratik24\_Set\_HashSet\_Linked. The file Pr02 is currently selected.
- Code Editor:** Displays the content of Pr02.java. The code creates three LinkedList objects (ll1, ll2, ll3) and adds various elements (String and Integer values) to them. It also prints the contents of the lists and the current time.
- Run Tab:** Set to "Pr02".
- Output Panel:** Shows the command used to run the program (C:\Users\HP.jdk\openjdk-18.0.2\bin\java.exe " [A, 20, C] [A, 25, K] [X, 28, V] 1727789491941 1727789491966) and the message "Process finished with exit code 0".
- Side Panels:** Commit, Pull Requests, Bookmarks, and Structure.

```
package JavaKonusalSorular.Pratik24_Set_HashSet_Linked;
import ...;

public class Pr02 {

    public static void main(String[] args) {

        LinkedList<Object> ll1 = new LinkedList();

        ll1.add("A");
        ll1.add(20);
        ll1.add('C');
        System.out.println(ll1); // [A, 20, C]

        // not : String olunca kabul etmedi ama atası olan object yapınca kabul etti..

        LinkedList ll2 = new LinkedList();

        ll2.add("A");
        ll2.add(25);
        ll2.add('K');
        System.out.println(ll2); // [A, 25, K]

        // object veya string yazmadan da kabul etti...

        LinkedList<String> ll3 = new LinkedList();

        ll3.add("X");
        ll3.add("28");
        ll3.add("V");
        System.out.println(ll3); // [X, 28, V]

        // Bu 3 yol arasında en hızlı 3. sudur..

        System.out.println(System.currentTimeMillis()); // olttakine göre 8 milisaniye daha hızlı
    }
}
```

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Java2021allfiles - Pratik24\_Set\_HashSet\_Linked\Pr02.java [Java2021allfiles]

Java2021allfiles > src > JavaKonusalSorular > Pratik24\_Set\_HashSet\_Linked > Pr02 > main

Project Commit Pull Requests Bookmarks Structure

Pr07.java X Pr08.java X CollectionsSetMethods.java X Pr01.java X Pratik24\_Set\_HashSet\_Linked\Pr02.java X Run: Pr02 X

Pratik12\_WhileL 38 for (int i = 0; i < 1000; i++) {  
Pratik13\_DoWhi 39 ll1.add("A"+i); // concat yapar  
Pratik14\_Arrays 40 ll1.add(20+i); // toplama yapar  
Pratik15\_ArrayL 41 ll1.add('C'+i); // ascii gonderir...  
Pratik16\_Constr 42 }  
Pratik17\_Encaps 43 System.out.println(System.currentTimeMillis());  
Pratik18\_Inherit 44 for (int i = 0; i < 1000; i++) {  
Pratik19\_OVERRID 45 ll2.add("A"+i);  
Pratik20\_Exception 46 ll2.add(25+i);  
Pratik21\_Abstract 47 ll2.add('K'+i);  
Pratik22\_Interface 48 }  
Pratik23\_Iterator 49 }  
Pratik24\_Set\_Ha 50 }  
CollectionsS 51 }  
Pr01 52 }  
Pr02 53 public static class Pr08 {  
Pr03 54 }  
Pr04 55 public static void main(String[] args) {  
Pr05 56 Set<String> set1 = new LinkedHashSet<>();  
Pr06 57 set1.add("F");  
Pr07 58 set1.add("A");  
Pr08 59 set1.add("B");  
Pr09 60 System.out.println(set1); // [F, A, B] --> yazildigi sirada ekler...  
Pr10 61 }  
Pr11 62 }  
Pr12 63 }  
Pr13 64 }  
Pr14 65 }  
Pr15 66 }  
Pr16 67 }  
Pr17 68 }  
Pr18 69 }  
Pr19 70 }  
Pr20 71 }  
Pr21 72 }

Run: C:\Users\HP\.jdks\openjdk-18.0.2\bin\java.exe "C:\Users\HP\OneDrive\Yazılım Mühendisliği\Java2021allfiles\src\JavaKonusalSorular\Pratik24\_Set\_HashSet\_Linked\Pr02.java"  
[A, 20, C]  
[A, 25, K]  
[X, 28, V]  
1727789491941  
1727789491966

Process finished with exit code 0

Git Debug TODO Problems Terminal Services Build

All files are up-to-date (a minute ago)

27:1 CRLF windows-1254 Tab\* master