

**SAFRIZAL RAHMAN**  
**Laporan Latihan Praktikum**  
**Algoritma Dan Struktur Data**

Link Github: [https://github.com/safrizalrahman46/JOBSHEET2\\_SEM2](https://github.com/safrizalrahman46/JOBSHEET2_SEM2)

TAMBAHAN METHOD BAYAR, TOTAL, HITUNG DISKON

```
/**
 * BukuSafrizal
 */
public class BukuSafrizal {
//Atribut
String jdl, pengarang;
int halaman, stok, harga, hitungHargaBayar,
hitungHargaDiskon, hitungDiskon;

public static void main(String[] args) {

    BukuSafrizal BukuSafrizalRahman = new
BukuSafrizal("Only Love", "Andreas Bondes", 368, 19,
150000);

    // Menampilkan informasi buku baru
    System.out.println("Informasi buku baru:");
    // BukuSafrizalRahman.tampilInformasi();

    // Menghitung harga total
    int jumlahTerjual = 10;
    int hargaTotal =
BukuSafrizalRahman.hitungHargaTotal(jumlahTerjual);
```

```
        System.out.println("Harga Total: " +  
hargaTotal);  
  
        // Menghitung diskon  
        int diskon =  
BukuSafrizalRahman.hitungDiskon(hargaTotal);  
        System.out.println("Diskon: " + diskon);  
  
        // Menghitung harga bayar  
        int hargaBayar =  
BukuSafrizalRahman.hitungHargaBayar(hargaTotal, diskon);  
        System.out.println("Harga Bayar: " +  
hargaBayar);  
    }  
  
    public BukuSafrizal(){  
  
    }  
  
    public BukuSafrizal(String jdul, String pgg, int hlm,  
int stok, int hg){  
  
        jdl = jdul;  
        pengarang = pgg;  
        halaman = hlm;  
        this.stok = stok;  
        harga = hg;  
  
    }
```

```

    void tampilinformasi(){
        System.out.println("Judul BUKU Yaw = " + jdl);
        //System.out.println("=====
=====");
        //System.out.println("=====
=====");
        System.out.println("Pengarang Buku yaw = " +
pengarang);
        System.out.println("Jumlah Halaman Bukunye
Berapa = " + halaman);
        //System.out.println("=====
=====");
        //System.out.println("=====
=====");
        System.out.println("Sisa Stok Berapa Bos = " +
stok);
        System.out.println("HargaNyee = " + harga);
        //System.out.println("=====
=====");
        //System.out.println("=====
=====");
    }

// void terjual(int jmlh){
//     stok -= jmlh;
// }

//Setelah DImodif
// void terjual(int jmlh){
//     if(stok > 0){
//         stok -= jmlh;

```

```
//      } else {  
//          System.out.println("Stok habis, Belum  
Kulakan.");  
//      }  
//  }  
void terjual(int jml){  
    stok -= jml;  
}  
  
void Kulakan(int jmlh){  
    stok += jmlh;  
}  
  
void gantiHarga(int jmlh){  
    stok -= jmlh;  
}  
  
// Menghitung harga total  
public int hitungHargaTotal(int jmlh) {  
    return jmlh * harga;  
}  
  
// Menghitung diskon  
public int hitungDiskon(int total) {  
    int diskon;  
    if (total > 150000) {  
        diskon = total * 12 / 100;  
    } else if (total > 75000) {  
        diskon = total * 5 / 100;  
    } else {  
        diskon = 0;  
    }  
}
```

```
        return diskon;  
    }
```

```
    // Menghitung harga bayar
```

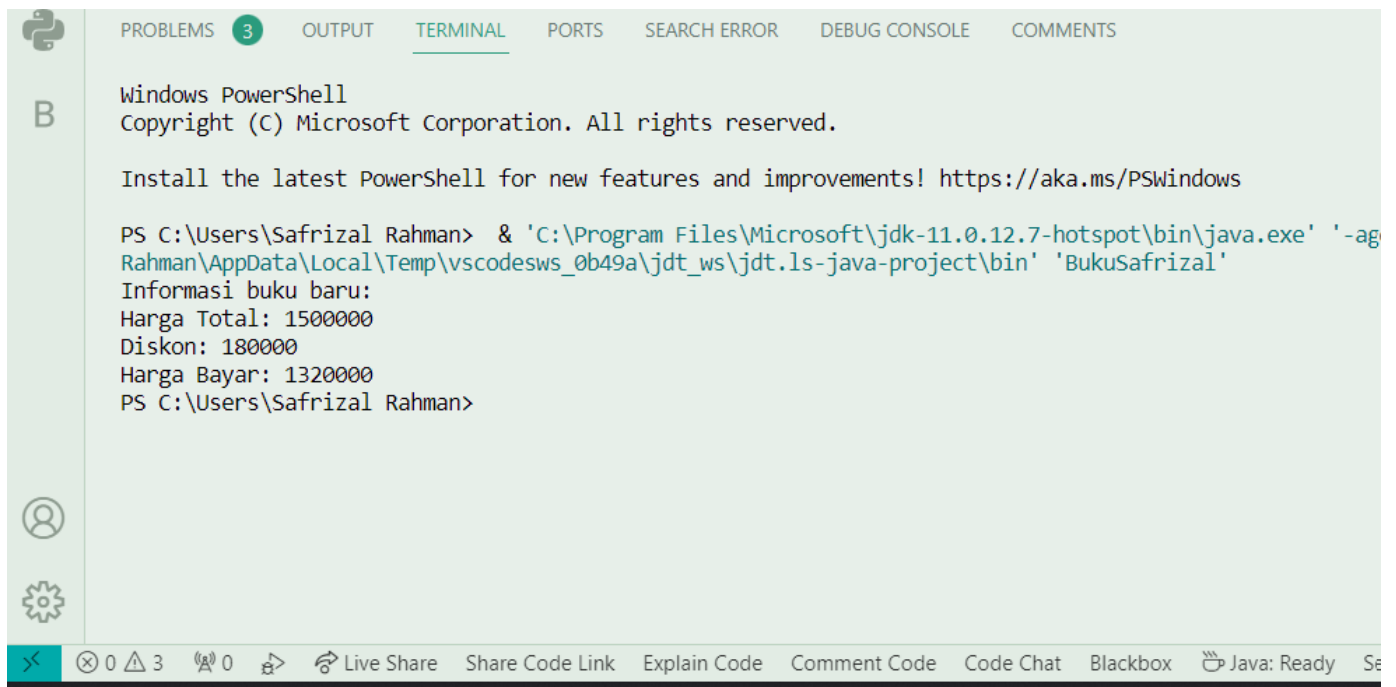
```
    public int hitungHargaBayar(int total, int diskon) {  
        return total - diskon;  
    }
```

```
public BUKUSAFRIZAL(String jdul, String pgg, int hlm,  
int stok, int hg){
```

```
    jdl = jdul;  
    pengarang = pgg;  
    halaman = hlm;  
    this.stok = stok;  
    harga = hg;
```

```
}
```

```
}
```



```
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\Safrizal Rahman> & 'C:\Program Files\Microsoft\jdk-11.0.12-hotspot\bin\java.exe' '-ag
Rahman\AppData\Local\Temp\vscodesws_0b49a\jdt_ws\jdt.ls-java-project\bin' 'BukuSafrizal'
Informasi buku baru:
Harga Total: 1500000
Diskon: 180000
Harga Bayar: 1320000
PS C:\Users\Safrizal Rahman>
```

```
/**
 * DragonSafrizal
 */
public class DragonSafrizal {

    public static void main(String[] args) {

    }
    // Atribut
    private int x;
    private int y;
    private int width;
    private int height;

    // Konstruktor
```

```
public DragonSafrizal(int x, int y, int width, int height) {  
    this.x = x;  
    this.y = y;  
    this.width = width;  
    this.height = height;  
}
```

*// Bergerak ke kiri*

```
public void moveLeft() {  
    if (x > 0) {  
        x--;  
    } else {  
        detectCollision();  
    }  
}
```

*// Bergerak ke kanan*

```
public void moveRight() {  
    if (x < width - 1) {  
        x++;  
    } else {  
        detectCollision();  
    }  
}
```

*// Bergerak ke atas*

```
public void moveUp() {  
    if (y > 0) {  
        y--;  
    } else {  
        detectCollision();  
    }  
}
```

```
    }  
}  
  
// Bergerak ke bawah  
public void moveDown() {  
    if (y < height - 1) {  
        y++;  
    } else {  
        detectCollision();  
    }  
}  
  
// Mencetak posisi dragon  
public void printPosition() {  
    System.out.println("Posisi dragon: (" + x + ", "  
+ y + ")");  
}  
  
// Mendeteksi tabrakan dan mencetak "Game Over"  
public void detectCollision() {  
    System.out.println("Game Over!");  
}  
}
```



```
PROBLEMS 2 OUTPUT TERMINAL PORTS SEARCH ERROR DEBUG CONSOLE
Windows PowerShell
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PS C:\Users\Safrizal Rahman> & 'C:\Program Files\Microsoft\jdk-11.0.10-hotspot\Safrizal Rahman\AppData\Local\Temp\vscodesws_46f83\jdt_ws\jdt.ls-java-prog
Posisi DragonSafrizal: (5, 5)
Posisi DragonSafrizal: (4, 5)
Posisi DragonSafrizal: (5, 5)
Posisi DragonSafrizal: (5, 4)
Posisi DragonSafrizal: (5, 5)
PS C:\Users\Safrizal Rahman>
```

```
^ java -cp /tmp/ebJn2YC61h DragonSafrizal
x
dash: 2: x: not found
y
dash: 3: y: not found
xxy
dash: 4: xxy: not found
y
dash: 5: y: not found
y
dash: 6: y: not found
y
dash: 7: y: not found
x--
dash: 8: x--: not found
y--
dash: 9: y--: not found
x++
dash: 10: x++: not found
|
```

Versi Kedua tidak Berhenti

```
import java.util.Random;

public class DragonSafrizal2 {
    private int x;
    private int y;
    private int width;
    private int height;
    private Random random;

    public DragonSafrizal2(int x, int y, int width, int
height) {
        this.x = x;
        this.y = y;
        this.width = width;
        this.height = height;
        random = new Random();
    }

    public void moveLeft() {
        if (x > 0 && x <= width) {
            x--;
        } else {
            detectCollision();
        }
    }

    public void moveRight() {
        if (x >= 0 && x < width) {
            x++;
        }
    }
}
```

```

        } else {
            detectCollision();
        }
    }

    public void moveUp() {
        if (y > 0 && y <= height) {
            y--;
        } else {
            detectCollision();
        }
    }

    public void moveDown() {
        if (y >= 0 && y < height) {
            y++;
        } else {
            detectCollision();
        }
    }

    public void printPosition() {
        System.out.println("Posisi DragonSafrizal2: (" +
x + ", " + y + ")");
    }

    public void detectCollision() {
        if (x < 0 || x > width || y < 0 || y > height) {
            System.out.println("Game Over");
            System.exit(0);
        }
    }
}

```

```

// Method untuk menggerakkan dragon secara acak
public void moveRandomly() {
    int direction = random.nextInt(4); // 0: left,
1: right, 2: up, 3: down
    switch (direction) {
        case 0:
            moveLeft();
            break;
        case 1:
            moveRight();
            break;
        case 2:
            moveUp();
            break;
        case 3:
            moveDown();
            break;
    }
}

```

*// Method untuk menjalankan permainan dengan dragon bergerak secara acak setiap beberapa detik*

```

public void playGame(int durationInSeconds) {
    long endTime = System.currentTimeMillis() +
durationInSeconds * 1000;
    while (System.currentTimeMillis() < endTime) {
        moveRandomly();
        printPosition();
        try {
            Thread.sleep(1000); // Pause selama 1
detik

```

```

        } catch (InterruptedException e) {
            e.printStackTrace();
        }
    }
}

public static void main(String[] args) {
    DragonSafrizal2 dragon = new DragonSafrizal2(5,
5, 10, 10);
    dragon.printPosition();
    dragon.moveLeft();
    dragon.printPosition();
    dragon.moveRight();
    dragon.printPosition();
    dragon.moveUp();
    dragon.printPosition();
    dragon.moveDown();
    dragon.printPosition();

    // Menjalankan permainan dengan durasi 10 detik
    dragon.playGame(10);
}
}

```

Install the latest PowerShell for new features and improvements! <https://aka.ms>,



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```
PS C:\Users\Safrizal Rahman> & 'C:\Program Files\Microsoft\jdk-11.0.12.7-hotsp  
:\Users\Safrizal Rahman\AppData\Local\Temp\vscodesws_46f83\jdt_ws\jdt.ls-java-pi
```

```
Posisi DragonSafrizal2: (5, 5)
```

```
Posisi DragonSafrizal2: (4, 5)
```

```
Posisi DragonSafrizal2: (5, 5)
```

```
Posisi DragonSafrizal2: (5, 4)
```

```
Posisi DragonSafrizal2: (5, 5)
```

```
Posisi DragonSafrizal2: (5, 6)
```

```
Posisi DragonSafrizal2: (4, 6)
```

```
Posisi DragonSafrizal2: (5, 6)
```

```
Posisi DragonSafrizal2: (4, 6)
```

```
Posisi DragonSafrizal2: (3, 6)
```

```
Posisi DragonSafrizal2: (2, 6)
```

```
Posisi DragonSafrizal2: (3, 6)
```

```
Posisi DragonSafrizal2: (3, 7)
```

```
Posisi DragonSafrizal2: (3, 6)
```

```
Posisi DragonSafrizal2: (2, 6)
```

```
PS C:\Users\Safrizal Rahman>
```