Nama : Fauzan Abdurrahman

NPM : 1842445

Jawaban Soal no 1

Main.java

```
package stmikamikbdg.uts1;
public class Main {
    public static void main(String[] args) {
        for (int x = 1; x <= 100; x++) {
            if (x % 3 == 0 && x % 7 != 0) {
                System.out.println(x + ". Belajar");
            } else if (x % 7 == 0 && x % 3 != 0) {
                System.out.println(x + ". Java");
            } else if (x % 3 == 0 && x % 7 == 0) {
                System.out.println(x + ". Belajar java menyenangkan");
            } else {
                System.out.println(x + ". -");
            }
        }
    }
}
```

Jawaban Soal no 2

BangunRuang.java

```
package stmikamikbdg.uts2;

/**
 *
 * @author Fauzan Abdurrahman
 */
public abstract class BangunRuang {
    public abstract double hitungLuasPermukaan();
    public abstract double hitungVolume();
}
```

Main.java

```
package stmikamikbdg.uts2;

import java.util.Scanner;
public class Main {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        int n;
        Kubus c = new Kubus();
        Bola b = new Bola();
        Kerucut cn = new Kerucut();

        System.out.println("Program menghitung Luas permukaan dan Volume Bangun Ruang");
        do {
            System.out.println("============================================");
            System.out.println("Pilih (pilih 0 untuk keluar) : ");
            System.out.println("1. Kubus");
            System.out.println("2. Bola");
            System.out.println("3. Kerucut");
            System.out.print("Pilihan anda : ");
            n = input.nextInt();

            switch(n) {
                case 1:
                    System.out.print("\nMasukkan nilai sisi : ");
                    double s = input.nextDouble();
                    c.setSisi(s);

                    System.out.println("Nilai luas permukaan dan volume Kubus dengan sisi "+ s +" cm
                    adalah: ");
                    System.out.println("Luas Permukaan Kubus : " + c.hitungLuasPermukaan() + "cm
                    kuadrat");
                    System.out.println("Luas Volume Kubus : " + c.hitungVolume()+ "cm kubik");
                    System.out.println("");
                break;

                case 2:
                    System.out.print("\nMasukkan nilai jari-jari : ");
                    double r = input.nextDouble();
                    b.setRadius(r);

                    System.out.println("Nilai luas permukaan dan volume Bola dengan jari-jari "+ r +"
                    cm adalah: ");
                    System.out.println("Luas Permukaan Bola : " + Math.round(b.hitungLuasPermukaan()) +
                    "cm kuadrat");
                    System.out.println("Luas Volume Bola : " + Math.round(b.hitungVolume()) + "cm
                    kubik");
                    System.out.println("");
                break;

                case 3:
                    System.out.print("\nMasukkan nilai jari-jari : ");
                    double rd = input.nextDouble();
                    cn.setR(rd);
                    System.out.print("Masukkan nilai tinggi : ");
                    double h = input.nextDouble();
                    cn.setH(h);

                    System.out.println("Nilai luas permukaan dan volume Kerucut dengan jari-jari "+ rd
                    +" cm, dan dengan tinggi "+ h +" cm adalah: ");
                    System.out.println("Luas Permukaan Kerucut : " +
                    Math.round(cn.hitungLuasPermukaan()) + "cm kuadrat");
                    System.out.println("Luas Volume Kerucut : " + Math.round(cn.hitungVolume()) + "cm
                    kubik");
```

```
                    System.out.println("");
                break;

                default:
                    System.out.println("tidak ada pilihan \naplikasi dikeluarkan");
                    n = 0;
            }
        } while (n != 0);
    }
}
```

Kubus.java

```
package stmikamikbdg.uts2;
public class Kubus extends BangunRuang{
    double s;

    public Kubus(double s) {
        this.s = s;
    }

    public Kubus() {}

    public void setSisi(double s) {
        this.s = s;
    }

    @Override
    public double hitungLuasPermukaan() {
        return 6 * (s * s);
    }

    @Override
    public double hitungVolume() {
        return s * s * s;
    }
}
```

Bola.java

```
package stmikamikbdg.uts2;
public class Bola extends BangunRuang{
    double r;

    public Bola(double r) {
        this.r = r;
    }

    public Bola() {
    }

    public void setRadius(double r) {
        this.r = r;
    }

    @Override
    public double hitungLuasPermukaan() {
        return (Math.PI * 4) * Math.pow(r, 2);
    }

    @Override
    public double hitungVolume() {
        return (4.0 / 3.0) * Math.PI * Math.pow(r, 3);
    }
}
```

Kerucut.java

```
package stmikamikbdg.uts2;
public class Kerucut extends BangunRuang{
    double h = 0;
    double r = 0;

    public Kerucut () {}

    public Kerucut(double r, double h) {
        this.h = h;
        this.r = r;
    }

    public void setH(double h) {
        this.h = h;
    }

    public void setR(double r) {
        this.r = r;
    }

    @Override
    public double hitungLuasPermukaan() {
        return Math.PI * r * (r + Math.sqrt(h * h + r * r));
    }

    @Override
    public double hitungVolume() {
        return (1.0 / 3.0) * (Math.PI * r * r * h);
    }

}
```