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Program to calculate the volume and surface area

of a right circular cylinder.

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// package for Scanner class objects

**import** java.util.Scanner;

**public** **class** Cylinder {

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

// introduce a Scanner class object

Scanner sc = **new** Scanner(System.***in***);

// declare and initialize the variables

**double** area = 0, height = 0, radius = 0, volume = 0;

String strName = "";

// greet the program user

System.***out***.println("Welcome to the Volume Program!");

// prompt user for their name

System.***out***.println("please enter your name");

// read the user name

strName = sc.nextLine();

//display the name back to the user

System.***out***.println("hello " + strName);

// input: assign values to the variables

System.***out***.print("Please enter the radius. ");

radius = sc.nextDouble();

System.***out***.print("Please enter the height. ");

height = sc.nextDouble();

// process: compute the required quantity

volume = 3.1416 \* radius \* radius \* height;

area = 2 \* 3.1416 \* radius \* height +

2 \* 3.1416 \* radius \* radius;

// output: display the output to the user

System.***out***.print("The volume of the cylinder is: ");

System.***out***.print(volume);

System.***out***.println(" cubic length units ");

System.***out***.print("The surface area of the cylinder is: ");

System.***out***.print(area);

System.***out***.println(" square length units ");

// dismiss the Scanner class object

sc.close();

}

}

