STARUML AND NETBEANS

Ceng 344
Object Oriented Languages
- Netbeans for coding
- StarUML for designing
STARUML OPENING SCREEN
STARUML
ADDING A PACKAGE
STARUML
PREPARING FOR CLASS DIAGRAM
STARUML
ADDING A CLASS
STARUML DEFINING ATTRIBUTE
STARUML DEFINING OPERATION
STARUML
FIRST CLASS

Circle
+radius: double
+Circle()
+Circle(newRadius: double)
+getArea(): double
NETBEANS

- Creating a New Java Class
  - Files>New Project
NETBEANS
NEW PROJECT

Steps
1. Choose Project
2. ...

Categories:
- Java
- JavaFX
- Java Web
- Java EE
- Java Card
- Java ME
- Maven
- PHP
- Groovy
- C/C++
- NetBeans Modules
- Samples

Projects:
- Java Application
- Java Class Library
- Java Project with Existing Sources
- Java Free-Form Project

Description:
*Creates a new Java SE application* in a standard IDE project. You can also generate a main class in the project. Standard projects use an *IDE-generated Ant build script* to build, run, and debug your project.
NETBEANS
CREATING A NEW CLASS
NETBEANS CODING

public class Circle {
    // The radius of this circle
    double radius = 1.0;
    // Construct a Circle Object
    Circle() {
    }
    // Construct a Circle Object with radius
    Circle(double newRadius) {
        radius = newRadius;
    }
    // Get the area of the circle
    double getArea() {
        return radius * radius * Math.PI;
    }
}
How to run

```java
public class CircleMain {
    public static void main(String[] args) {
        Circle circle1 = new Circle();
        System.out.println("The area of the circle of radius" + circle1.radius + "= "+circle1.getArea());
        Circle circle2 = new Circle(25);
        System.out.println("The area of the circle of radius" + circle2.radius + "= "+circle2.getArea());
        Circle circle3 = new Circle(125);
        System.out.println("The area of the circle of radius" + circle3.radius + "= "+circle3.getArea());
        circle1.radius = 100;
        System.out.println("The area of the circle of radius" + circle1.radius + "= "+circle1.getArea());
    }
}
```

Result

```
run
The area of the circle of radius1.141592653589793
The area of the circle of radius4.9644094592007
The area of the circle of radius2.065210210016
The area of the circle of radius100.0131416.926535897932
BUILD SUCCESSFUL (total time: 1 second)
```
YOUR TURN

- Now create a CAR class in UML and Java
  - In your class your attributes will be: brand, model, year, color, plate.
  - In your class, you will set these attributes with a set method:
    - Like: setBrand(attribute)
  - In your class, you will get the values with get methods:
    - Like: getColor()
  - Do not forget to create your main class for setting and getting values
Students may leave the lab after showing their work.