

# Abstract Classes

**Spoken Tutorial Project**

<http://spoken-tutorial.org>

**National Mission on Education through ICT**

<http://sakshat.ac.in>

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# Learning Objectives





# Learning Objectives

We will learn about

- **Abstract Methods and Concrete Methods**





# Learning Objectives

We will learn about

- Abstract Methods and Concrete Methods
- **Abstract Classes and Concrete Classes**





# Learning Objectives

We will learn about

- Abstract Methods and Concrete Methods
- Abstract Classes and Concrete Classes
- **Using Abstract Classes**





# Software Requirements





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- **Ubuntu 12.04**





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- Ubuntu 12.04
- **JDK 1.7**





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- Ubuntu 12.04
- JDK 1.7
- Eclipse 4.3.1





# Prerequisite





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- **Basic knowledge of Java and Eclipse IDE**





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- Basic knowledge of Java and Eclipse IDE
- Knowledge of Subclassing





# Prerequisite

- Basic knowledge of Java and Eclipse IDE
- Knowledge of **Subclassing**
- **For relevant tutorials, please visit**  
<http://www.spoken-tutorial.org>





# What is an Abstract Method?





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- **An abstract method is a method that is declared without an implementation**





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- An **abstract method** is a method that is declared without an implementation
- An **abstract method is declared using the abstract keyword**





# What is an Abstract Method?

- An **abstract method** is a method that is declared without an implementation
- An **abstract method** is declared using the **abstract keyword**
- **No opening and closing parenthesis**



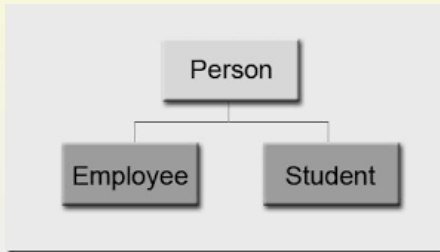


# Abstract Class - Example



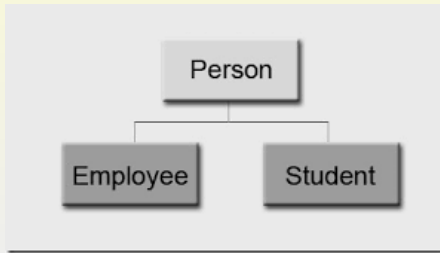


# Abstract Class - Example





# Abstract Class - Example

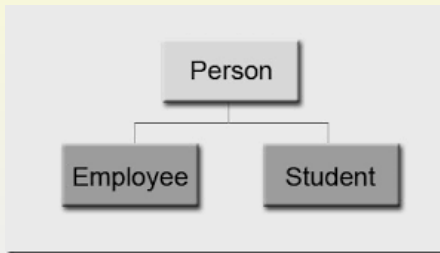


**Emp ID, Salary**





# Abstract Class - Example



**Emp ID, Salary**



**Stud Reg.no, Grade**





# Summary

- **Abstract Methods and Concrete Methods**
- **Abstract Classes and Concrete Classes**
- **How to use Abstract Classes**





# Assignment

- Create an abstract class **Vehicle** which contains an abstract method **run()**





# Assignment

- Create an abstract class **Vehicle** which contains an abstract method **run()**
- Create a subclass **Car** which





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- Create an abstract class **Vehicle** which contains an abstract method **run()**
- Create a subclass **Car** which
  - Extends the **Vehicle** class and





# Assignment

- Create an abstract class **Vehicle** which contains an abstract method **run()**
- Create a subclass **Car** which
  - Extends the **Vehicle** class and
  - **Implements the run method that prints "Car is running on 4 wheels"**





# Assignment

- Create another subclass **Bike** which





# Assignment

- Create another subclass **Bike** which
  - Extends the **Vehicle** class and





# Assignment

- Create another subclass **Bike** which
  - Extends the **Vehicle** class and
  - **Implements the run method that prints "Bike is running on 2 wheels"**





# Assignment

- Create another subclass **Bike** which
  - Extends the **Vehicle** class and
  - Implements the **run** method that prints  
"Bike is running on 2 wheels"
- Create a **Demo** class containing the  
**main** method to verify the results





# About the Spoken Tutorial Project

- Watch the video available at [http://spoken-tutorial.org/What\\_is\\_a\\_Spoken\\_Tutorial](http://spoken-tutorial.org/What_is_a_Spoken_Tutorial)
- It summarises the Spoken Tutorial project
- If you do not have good bandwidth, you can download and watch it





# Spoken Tutorial Workshops

## The Spoken Tutorial Project Team

- Conducts workshops using spoken tutorials
- Gives certificates to those who pass an online test
- For more details, please write to [contact@spoken-tutorial.org](mailto:contact@spoken-tutorial.org)





# Acknowledgements

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- It is supported by the National Mission on Education through ICT, MHRD, Government of India
- More information on this Mission is available at <http://spoken-tutorial.org/NMEICT-Intro>





# About the contributor

- This script has been contributed by:  
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- Thanks for joining

