```java
package Package;


no usages
public class AdministrativeEmployee extends Employee {


    /**
     *
     * @param employee
     */
    no usages
    public void paySalary(Employee employee) {
        // TODO - implement AdministrativeEmployee.paySalary
        throw new UnsupportedOperationException();
    }


}
```

Course.java

```java
package Package;


public class Course {

    public String name = "";

    public int id = 0;

    public float hours = 0;

    public String material = "";

}
```

Employee.java

```java
package Package;

public class Employee {

    public int ssNo = 0;

    public String name = "";

    public String email = "";

    public int salary = 0;

    public static int counter = 0;


    public void getSalary() {
        // TODO - implement Employee.getSalary
        throw new UnsupportedOperationException();
    }

}
```

Two IDE screenshots showing Java source files.

First screenshot — Faculty.java

```java
package Package;

import java.util.Date;

public class Faculty {

    public String name = "";

    public Date dateOfCreation = null;

    public String Adress = "";

    public Employee deanName = null;
}
```

Project tree (Package): AdministrativeEmployee, Course, Employee, Faculty, Institute, Lecturer, Participation, Project, ResearchAssociate, University, code.iml

Structure:
- Faculty
  - name: String = ""
  - dateOfCreation: Date = null
  - Adress: String = ""
  - deanName: Employee = null

Second screenshot — Institute.java

```java
package Package;

import java.util.*;

public class Institute {

    public String name = "";

    public Date dateOfCreation = null;

    public String adress = "";

    public List<ResearchAssociate> researchAssociates = null;

    public Collection<ResearchAssociate> attribute = new ArrayList<>();

    /**
     *
     * @param researchAssociate
     */
    public void addResearchAssociate(ResearchAssociate researchAssociate) {
        // TODO - implement Institute.addResearchAssociate
        throw new UnsupportedOperationException();
    }

}
```

Structure:
- Institute
  - addResearchAssociate(ResearchAssociate): void
  - name: String = ""
  - dateOfCreation: Date = null
  - adress: String = ""
  - researchAssociates: List<ResearchAssociate> = null
  - attribute: Collection<ResearchAssociate> = new ArrayList<>()

Screenshot 1 (Lecturer.java):

```java
package Package;

public class Lecturer extends ResearchAssociate {

    public void teach() {
        // TODO - implement Lecturer.teach
        throw new UnsupportedOperationException();
    }

    public void gradeStudents() {
        // TODO - implement Lecturer.gradeStudents
        throw new UnsupportedOperationException();
    }
}
```

Project tree:
- code sources root, C:\Users\olegs\Downloads\NewLabs\code
  - .idea
  - Package
    - AdministrativeEmployee
    - Course
    - Employee
    - Faculty
    - Institute
    - Lecturer
    - Participation
    - Project
    - ResearchAssociate
    - University
  - code.iml
  - External Libraries
  - Scratches and Consoles

Structure
- Lecturer
  - teach(): void
  - gradeStudents(): void

Screenshot 2 (Participation.java):

```java
package Package;

public class Participation {

    public double hours = 0;

}
```

Project tree:
- code sources root, C:\Users\olegs\Downloads\NewLabs\code
  - .idea
  - Package
    - AdministrativeEmployee
    - Course
    - Employee
    - Faculty
    - Institute
    - Lecturer
    - Participation
    - Project
    - ResearchAssociate
    - University
  - code.iml
  - External Libraries
  - Scratches and Consoles

Structure
- Participation
  - hours: double = 0

```java
package Package;

import java.util.ArrayList;
import java.util.Date;
import java.util.List;

1 usage
public class Project {

    no usages
    public String name = "";
    no usages
    public Date start = null;
    no usages
    public Date end = null;
    no usages
    public List<String> reports = new ArrayList<>();

    /**
     *
     * @param researchAssociate
     */
    no usages
    public void getProject(ResearchAssociate researchAssociate) {
        // TODO - implement Project.getProject
        throw new UnsupportedOperationException();
    }
}
```

```java
package Package;

public class ResearchAssociate extends Employee {

    public String fieldOfResearch = "";

    /**
     *
     * @param project
     */
    public void startProject(Project project) {
        // TODO - implement ResearchAssociate.startProject
        throw new UnsupportedOperationException();
    }
}
```

```java
package Package;

import java.util.Date;

public class University {

    public String name = "";

    public Date dateOfCreation = null;

    public String mainAdress = "";

    public Employee rectorName = null;

}
```

Tools menu showing Code submenu:
- Generate Java Code...
- Reverse Java Code...

Reverse Java Code...

- Reverse C++ Code...
- Instant Generator...
- Instant Reverse...
- Generate State Machine Code...
- Reverse State Machine Code...
- Instant Reverse Java to Sequence Diagram...

Class Repository panel:
- untitled
- Java Round-trip
  - Reverse "Java Round-trip" to >
    - New Class Diagram
    - Class Repository
  - Collapse
  - Expand

Reverse Java Code...

AdministrativeEmployee
+paySalary(employee : Employee) : void

Institute
+name : String = ""
+dateOfCreation : Date = null
+adress : String = ""
+researchAssociates : ResearchAssociate = null
+attribute : ResearchAssociate = new ArrayList<>()

+age() : double
+addResearchAssociate(researchAssociate : ResearchAssociate) : void

Lecturer
+teach() : void
+gradeStudents() : void

ResearchAssociate
+fieldOfResearch : String = ""
+startProject(project : Project) : void

Employee
+ssNo : int = 0
+name : String = ""
+email : String = ""
+salary : int = 0
+counter : int = 0
+age() : double
+getSalary() : void

University
+name : String = ""
+dateOfCreation : Date = null
+mainAdress : String = ""
+rectorName : Employee = null
+age() : double

+rectorName

* +researchAssociates   * +attribute

Participation
+hours : double = 0

+deanName

Course
+name : String = ""
+id : int = 0
+hours : float = 0
+material : String = ""

Project
+name : String = ""
+start : Date = null
+end : Date = null
+reports : List<String> = new ArrayList<>()
+getProject(researchAssociate : ResearchAssociate) : void

Faculty
+name : String = ""
+dateOfCreation : Date = null
+Adress : String = ""
+deanName : Employee = null
+age() : double