**University Course Management Application**

**Student**

**Administrator**

**StudentOperations**

**CourseOperations**

**University**

**LabCourse**

**TheoryCourse**

**Course**

**AdministratorOperations**

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| **AdministratorOperations** |
| boolean insertInstructor (Instructor ins)  boolean removeInstructor (Instructor ins)  Administrator searchInstructor (String insId)  void showAllInstructor ( ) |

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| **StudentOperations** |
| boolean insertStudent (Student s)  boolean removeStudent (Student s)  Student searchStudent (int id)  void showAllStudents ( ) |

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| **Course** |
| String courseCode  Student student |
| void setCourseCode (String courseCode)  void setStudent (Student student)  String getCourseCode ( )  Student getStudent ( )  abstract void showDetails( ) |

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| **CourseOperations** |
| boolean addCourse (Course c)  boolean dropCourse (Course c)  Course searchCourse(String courseCode)  void showAllCourses( ) |

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| **Student** |
| int id  String name  String phnNumber |
| void setId(int id)  void setName(String name)  void setPhnNumber(String phnNumber)  int getId( )  String getName( )  String getPhnNumber( )  void showDetails( ) |

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| **LabCourse** |
| int taskHour |
| void setTaskHour(int taskHour)  int getTaskHour( ) |

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| **TheoryCourse** |
| double creditTime |
| void setCreditTime (double creditTime)  double getCreditTime ( ) |

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| **Administrator** |
| String insId  String insName  double salary |
| void setInsId(String insId)  void setInsName(String insName)  void setSalary(double salary)  String getInsId( )  String getInsName( )  double getSalary( )  void showDetails( ) |

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| **University** |
| String name  Course courses [ ]  Student students [ ]  Administrator administrators [ ] |
| void setName(String name)  String getName( )  void showDetails( ) |

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| **Start** |
| The Start class contains the main method. Inside the main method the application prompts the user to choose among the following options:  1. Administrator Management  2. Student Management  3. Course Management  4. University Information  5. Exit  Upon choosing any of the option the user is given some further options to choose from:  *Options for Administrator Management:*   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | *Insert New Instructor* |  | *Remove Instructor* |  | *Search Instructor* |  | *Show All Instructor* |  | *Go Back* |   *Options for Student Management:*   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | *Insert New Student* |  | *Remove Student* |  | *Search Student* |  | *Show All Students* |  | *Go Back* |   *Options for Course Management:*   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | *Add Course* |  | *Drop Course* |  | *Search Course* |  | *Show All Courses* |  | *Go Back* |   The application will prompt the user to give input for the necessary values as per the option they choose. The application will repeatedly go on according to the user choices. |