# SRS

BRIEF PROBLEM STATEMENT

The main goal of the project is to develop a android based mobile application which is

essentially an E-Learning platform mainly used to educate Adult Illiterates.The tool shall

be enough capable of providing a user friendly interface which even a person from a nontechnological background can easily learn to operate.

The tool shall be able to adhere to the **teaching goals, teaching process,instructional material of the teacher**. It shall also contain **reasoning support** and **separate multi-lingual user interfaces** both to the student and the teacher.

SYSTEM REQUIRMENTS

The main goal is to develop the application using an android platform which will basically be used for android based tablets and phones.

The platform on which it is developed is the android os and the ontology is framed using the Protégé from Stanford.

The main language used is OWL(Web Ontology Language).

USERS PROFILE

The main users of the app will be teachers and students who will be using this app to improve the teaching standards.

FEATURE REQUIREMENTS

The overall functionality can be broadly broken down to five steps:-

**1.Teaching goals:**The tool shall be capable of expressing the teaching goals in a standard way. Since Blooms Taxonomy is a very widely accepted classification of learning objectives our tool will let the user,teacher, represent his teaching goals in this way.

**2.Teaching Process:** This involves the design of the methodology of the teaching which is going to be implemented in the course. Our tool shall represent the teachers teaching goals similar to Blooms Taxonomy.

**3.Instructional Material:** The entire course material is divided into **FCRM** model i.e., Facts ,Cases,Rules and Models.

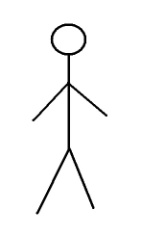
**4.Reasoning:** This involves the evaluation of each student under some given criteria.

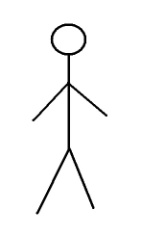
This part of the tool can be used by the student to for self evaluation. And this also validates if the teaching goals are met.

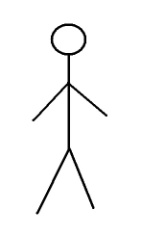
**5.User interfaces**: The tool shall contain different interfaces for teacher and student separately. This is a multi-lingual mobile application and the user gets to select between

English or any other Indian Language.

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| **No.** | **User Case Name** | **Description** | **Release** |
| 1. | Login | The user logs into the application | R1 |
| 2. | Register | Registration of the user | R1 |
| 3. | Introduction of new Course | A new course is added to the application | R1 |
| 4. | Open existing course | Open an existing course3 and obtain details | R1 |
| 5. | Remove course | Removing a course from the app | R1 |
| 6. | Dropdown of Blooms Taxonomy | Representing the teaching goals of each activity and chapter using the Bloom’s Taxonomy | R2 |
| 7. | Uploading FCRM | Teacher uploads the instructional material in FCRM model | R2 |
| 8. | Student Reading | Students reads the material | R2 |
| 9. | Uploading exercises | Giving the exercises based on the instructional material | R2 |
| 10. | Evaluation of student performances | Using the data obtained from the exercises the evaluation of the student is done | R2 |

Teacher



Student

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| **Use Case Number:** | UC-1 |
| **Use Case Name:** | Login |
| **Overview:** | The user logs into the application |
| **Actors:** | Teacher, Students |
| **Pre condition:** | User should be registered |
| **Post Condition:** | User should be able to see his respective pages |

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| **Use Case Number:** | UC-2 |
| **Use Case Name:** | Register |
| **Overview:** | Registration of the user |
| **Actors:** | Teacher, Students |
| **Pre condition:** | None |
| **Flow:** | The user enters his details and registers in the system |
| **Post Condition:** | The user can login to the application |

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| **Use Case Number:** | UC-3 |
| **Use Case Name:** | Introduction of a new Course |
| **Overview:** | A new course is added to the application |
| **Actors:** | Teacher |
| **Pre condition:** | Teacher must be logged in |
| **Flow:** | 1.On choosing this option teacher can add a new course  2.The interface shows the different options like goals,instructional material,etc.  3.User chooses the appropriate one and proceeds |
| **Post Condition:** | A new course is installed |

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| **Use Case Number:** | UC-4 |
| **Use Case Name:** | Open an existing course |
| **Overview:** | Open an existing course and obtain details |
| **Actors:** | Teacher |
| **Pre condition:** | A course should already exist |
| **Flow:** | 1.The course details of the course are present  2.The teacher has an option to edit the course details |
| **Post Condition:** | The course has been updated |

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| **Use Case Number:** | UC-5 |
| **Use Case Name:** | Remove course |
| **Overview:** | Removing a course from the app |
| **Actors:** | Teacher |
| **Pre condition:** | There should be an existing course |

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| **Use Case Number:** | UC-6 |
| **Use Case Name:** | Dropdown of Blooms Taxonomy |
| **Overview:** | Representing the teaching goals of each activity and chapter using the Bloom’s Taxonomy |
| **Actors:** | Teacher |
| **Pre condition:** | Should be a course existing |
| **Flow:** | 1.User chooses the expected goal from the list provided  2.A drag and drop interface is provided so that the flow of the chapter can be expressed |
|  | Alternate Flows:  The goals are always mapped to the activities |
| **Post Condition:** | The teaching goals are expressed |

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| **Use Case Number:** | UC-7 |
| **Use Case Name:** | Uploading FCRM |
| **Overview:** | Teacher uploads the instructional material in FCRM model |
| **Actors:** | Teacher |
| **Flow:** | An interface is provided in which the teacher enters the information in FCRM format |
| **Post Condition:** | The instructional material is updated |

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| **Use Case Number:** | UC-8 |
| **Use Case Name:** | Student Reading |
| **Overview:** | Student reads the material and understand it |
| **Actors:** | Students |
| **Pre condition:** | Material must be provided |
| **Post Condition:** | Student has learned the material |

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| **Use Case Number:** | UC-9 |
| **Use Case Name:** | Updating Exercises |
| **Overview:** | Giving the exercises based on the instructional material |
| **Actors:** | Teacher |
| **Flow:** | 1.The activities are uploaded  2.They relate to the goals of the teacher |

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| **Use Case Number:** | UC-10 |
| **Use Case Name:** | Evaluation of student performances |
| **Overview:** | Using the data obtained from the exercises the evaluation of the student is done |
| **Actors:** | Teacher, Students |
| **Pre condition:** | Student has given the test |
| **Flow:** | 1.Answers are evaluated by comparing them to that of the solutions given by the teacher  2.The score of each student is displayed  3. Users can refer back to the predefined solution |
|  | Alternate Flows: The student can also get the solution and the analysis of his performance |
| **Post Condition:** | Evaluating of the student is done |