**SRI LANKA INSTITUTE OF INFORMATION TECHNOLOGY**



Assignment 02

IT1050 - Object Oriented Concepts

Topic: Online Help Desk for University Students

Group no: MLB\_06.02\_05 - Year 1 Semester 02

Campus: **Malabe** / ~~Metro~~ / ~~Matara~~ / ~~Kandy~~ / ~~Kurunegala~~ / ~~Kandy~~ / ~~Jaffna~~

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We declare that this is our own work and this Assignment does not incorporate without acknowledgment any material previously submitted by anyone else in SLIIT or any other university/Institute. And we declare that each one of us equally contributed to the completion of this Assignment.

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1. **System Requirements**

* Student should sign in using his or her user credentials to the system to receive the service as a registered student.
* Student can raise a ticket mentioning issues while at registering, attempting exam, on a software or network matter and other problems related academic work.
* If the support received is not sufficient, the student should make a request again.
* User is responsible for checking emails daily for solving issues properly.
* System should be able to store the student details related to exams, modules, results as well as faculty details and feedback.
* System should store details of previously solved issues with the reference of the student details.
* Provides a platform to upload the exam related documents to the homepage.
* Access to create, insert, modify, update, and delete the exam related documents at the homepage.
* System analyses the results using statical methods such as graphs or charts for future reference for taking decisions.
* System provides an interface for the users to suggest the feedbacks about the service and rate the service as they prefer.
* System categorizes the feedback according to positive and suggestions(negative).

1. **Identifying Classes**

* Ticket Counter Process
* Ticket counter assistant login to the system by using their login credentials.
* Registered Student login with user credentials and selects the relevant faculty.
* Students raise a ticket by noting relevant issue. Such as exam related, software related and network relater and other.
* The ticket counter assistant randomly selects a ticket and gives the student a solution. When problems are not resolved, the matter is referred to a senior officer in charge of the subject.
* The student checks the solution type for previously submitted tickets.
* If no solution has been found for previously submitted tickets, a solution will be found by sending an e-mail to the Ticket Counter Assistant.

Classes:

* Ticket Counter Assistant
* Registered Student
* Ticket
* Solution
* Exam Registration
* The registered student visits the webpage “TECHNOHELP”.
* Then the registered student enters the user credentials for login into the system. If the student hasn’t a user account permanently, he or she uses a temporary id and a password to register for the exam.
* Then the student finds the relevant faculty and clicks on the examination tab.
* Next, goes through the exam register portal to fill in the exam details such as Student Id, name, University Branch, Module Code, Module Name such as ‘EAP’, ‘IWT’, ‘MC’, ‘IP’ and ‘ISDM’, Exam Type like ‘Orientation’, ‘Spot Test’, ‘Mid Term’, ‘Final’ or ‘Online Test’.
* After entering the details student can register for the exam by submitting the form.
* The student can inquiry about the issues occur when registering for the exams.
* The exam registration administrator checks the issues and offer an appropriate solution like refresh the page or fill the form again.
* After the form is submitted the student receives the exam schedule, the date, time.
* Exam registration administrator is responsible for clarify the topics to be given at the exam.
* He or she creates, updates, modifies, and deletes the exam schedules.
* Before the exam starting day exam administrator assign students for separate timelines.
* After the exam paper is validated and approved exam administrator assign the papers to students.
* If the student emerges an issue while attempting the exam, he or she raise a ticket.
* The exam administrator checks the issues, provides a response. If not relevant for the field forwards for higher level senior staff.
* Student receives the result.
* After results are released exam administrator analyses them using graphs and charts for future needs of the university.

Classes:

* Exam Registration Administrator
* Registered Student
* Result
* Issue
* Faculty
* Module
* Exam
* Software Operator Process
* Registered student visits the webpage.
* Then registered student enters the user credentials for login into the system. If student forget password or credentials student can log in with Student Id number and NIC
* Then student go to menu bar and select academic button.
* Then student select the relevant faculty.
* After that student select ticket option.
* Then system display the ticket application.
* Student fill the application mentioning issue type.
* Next student should verify the details.
* And then submit the form.
* After the submitting form student receive a confirmation message mentioning ticket has received from system.
* Then software operator logs in to the system using credentials.
* And after that software operator check for issues related software and hardware, which are forwarded by the ticket counter assistant
* Then software operator contacts the student and give a solution for the issue
* After that student give feedback about the service, If the feedback is a positive one software operator forward it to system, and if it is a negative software operator contact student again and provide a solution which student can satisfied.

Classes:

* Software operator
* Registered Student
* Ticket
* Solution
* Network Administrator Process
* Registered student login with user credentials.
* Then student goes to the menu bar and select the button.
* Then select the relevant faculty.
* Registered Student select the ticket option.
* Display ticket form.
* Registered Student fill out the application and gives the network issue.
* After that student submit the application.
* After that submitting the application student receives a message about confirmation.
* Network administrator logging in to the system using credentials.
* After that network administrator checks relevant network issues tickets.
* And find what is the issue of the network related to the given issues.
* Then found the solution and that given through email.
* Then that information is not enough contact the student and give solutions for that.

Classes:

* Network Administrator
* Ticket
* Solution
* Support Assistant Process
* Registered Student opens the browser and enters to the system.
* Student enters the credentials.
* Student login to the system.
* Student goes to the feedback section.
* Student gives the feedback.
* Support Assistant check the received feedbacks.
* Support Assistant filters feedbacks into positive comments and suggestions.
* Support Assistant focuses on suggestions and forwards them to relevant person in particular field.
* Support Assistant updates ratings in the website according to the positive comments.

Classes:

* Support Assistant
* Feedback

1. **CRC Cards**

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| Student | |
| Responsibilities | Collaborations |
| Login to the system |  |
| Sign in using temporary ID and password |  |
| Register the system using permanent user credentials | Registered student |

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| Registered Student | |
| Responsibilities | Collaborations |
| Login to the system |  |
| Update user profile |  |
| Finds the faculty | Faculty |
| Selects the issue type | Issue |
| Clicks on the examination tab |  |
| Completes the details regarding the exam at the exam register portal |  |
| Register for the exam by submitting the form |  |
| Send inquiries related on exam registering if any |  |
| Receive immediate solutions | Solution |
| Receive the exam schedule | Exam |
| Receives the paper at the exam |  |
| If having an issue, fills the ticket application |  |
| Verify details on ticket form |  |
| Raise a ticket on attempting exam issues | Ticket |
| Store records of previously submitted tickets |
| Give feedback | Feedback |

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| Ticket Counter Assistant | |
| Responsibilities | Collaboration |
| Keep records of all tickets | Ticket |
| Give Solution to student | Solution |
| Forward to senior staff, if who wants more details |  |

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| Faculty | |
| Responsibilities | Collaborations |
| Store the details of the faculty staff |  |
| Store the details of students for the relevant faculty | Registered Student |
| Assign an exam administrator | Exam Registration Administrator |

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| Module | |
| Responsibilities | Collaborations |
| Store Module details |  |
| Store results | Result |
| Update |  |
| Assign an exam schedule for relevant module | Exam |

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| Exam | |
| Responsibilities | Collaborations |
| Assign an exam administrator | Exam Registration Administrator |
| Store results | Result |
| Store details of the relevant module for the exam. | Module |
| Assign an exam schedule |  |

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| Result | |
| Responsibilities | Collaborations |
| Store results |  |
| Update results |  |
| Separate the results according to the modules | Module |
| Analyze the stored results |  |

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| Issue | |
| Responsibilities | Collaborations |
| Store issues |  |
| Check issue |  |
| Response issues |  |

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| Ticket | |
| Responsibilities | Collaboration |
| Give ticket status message |  |
| Keep all records of ticket issues |  |
| Keep records of every registered student issues | Registered Student  Issue |
| Provide another attempt to raise the ticket |  |

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| Solution | |
| Responsibilities | Collaboration |
| Give solutions for student |  |
| Keep records of all type issues | Issue |
| Keep records of previously given solutions |  |

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| Feedback | |
| Responsibilities | Collaborations |
| Update feedbacks |  |
| Filter into positive feedbacks and suggestions |  |

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| Ticket Counter Assistant | |
| Responsibilities | Collaboration |
| Keep records of all tickets | Ticket |
| Give Solution to student | Solution |
| Forward to senior staff, if who wants more details |  |

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| Exam Registration Administrator | |
| Responsibilities | Collaborations |
| Login to the system |  |
| Finds the faculty | Faculty |
| Clarify the topics to be given at the exam | Exam |
| Completes the details regarding the exam at the exam register portal |
| Create, Update, Modify and delete exam schedule |
| Assign the separate timelines for exams |
| Assign the papers |  |
| Analyze results | Result |

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| Software Operator |  |
| Responsibilities | Collaborations |
| Log in to the system |  |
| Search for the issues | Issue |
| Give a solution which can satisfied the student | Solution |

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| Network Administrator | |
| Responsibilities | Collaborations |
| Check student’s tickets. | Registered Student |
| Check issues and get solution for it. | Issue  Solution |
| Give a solution for the issues | Solution |

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| Support Assistant | |
| Responsibilities | Collaborations |
| Check received feedbacks | Feedback |
| Filter received feedbacks into positive comments and suggestions |
| Focus on suggestions and forward them to relevant person in particular field |
| Update ratings at the website according to the positive comments |  |

**Exercise 1 : Class Diagram**

**![Diagram

Description automatically generated]()**

**Exercise 2 : Coding for the Classes in the Class diagram**