Sri Lanka Institute of Information Technology

PROJECT REGISTRATION FORM

The purpose of this form is to allow final-year students of the B.Sc. (Hon) degree program to enlist in the final-year project group. Enlisting in a project entail specifying the project title and the details of four members in the group, the internal supervisor (compulsory), the external supervisor (may be from the industry), and indicating a brief description of the project. The description of the project entered on this form will not be considered as the formal project proposal. It should however indicate the scope of the project and provide the main potential outcome.

PROJECT TITLE (As per the accepted Topic Assessment Form)	Chat-Bot System for Computers, Accessories & Repair Center Recommendation

RESEARCH AREA (As per the Topic Assessment Form)	Machine Learning (ML)

PROJECT NUMBER	23-283	(Will be assigned by the RP Team)

PROJECT GROUP MEMBER DETAILS: (Please start with the group leader's details)

	STUDENT NAME	STUDENT NO.	CONTACT NO.	EMAIL ADDRESS
1	Thirimanne S.U.	IT20225506	+94 76 639 6304	It20225506@my.sliit.lk
2	Rathnaweera R.P.W.G.	IT20237554	+94 76 799 0025	It20237554@my.sliit.lk
3	Senadheera H.A.M.	IT20125998	+94 76 704 1198	It20125998@my.sliit.lk
4	Amanullath M.U.	IT20155520	+94 71 238 8899	It20155520@my.sliit.lk

SUPERVISOR, CO_ SUPERVISOR Details

SUPERVISOR Name	CO-SUPERVISOR Name
Dr. Lakmini Abeywardhana	Ms. Dinuka Wijendra

EXTERNAL SUPERVISOR Details (if any, may be from the industry)

				Attach the email as Appendix 3
Name	Affiliation	Contact Address	Contact Numbers	Signature/Date

ACCEPTANCE BY CDAP MEMBER (This part will be filled by the RP team)

Name	Signature	Date

PROJECT DETAILS

Brief Description of your Research Problem: (extract from the topic assessment form)
The E-commerce Chat Bot Recommender System for laptops is a technology designed to enhance the online shopping experience for laptop customers. It operates through a chatbot interface that interacts with customers via messaging platform and understanding the requirements & preferences of the customers. As per what we are trying to achieve is to provide the optimum results and preferences for our customers neglecting unnecessary search results saving time & effort. In addition, we are focusing not only text recognition but also image recognition as well. Furthermore, we are focusing this system for Sri Lankan community in order to support their needs according to their financial status. We are focusing on using web – scraping to cater the above need as well. We are focusing on providing device & repair center recommendation system towards the customers in order to cater their needs. Furthermore, we will be providing image processing for computing accessory identification so that we will be able to identify computing accessories faster and more accurately.

Main expected outcomes of the project: (extract from the topic assessment form)
The main reason why we are focusing on a Chat – Bot Recommender system is to provide best and accurate results towards our customers saving their time and effort rather than searching separate search queries. We will be able to pin – point exact requirements of the customer and provide with the optimum solution to cater their needs.   By using the Chat – Bot system, we will gather their requirements using NLP and then use web scarping to find optimum solutions towards them. Another proposed method is to use voice recognition using speech to text for online reviews. So, we will be able to identify different user perspectives from multiple reviewers for more accurate results.   Another proposed sub – system is recommending device & repair centers to users. We will be using recommendation systems based reviews. Finally we will be using Image Processing to identify computer accessories.

WORKLOAD ALLOCATION (**extract from the topic assessment form after correcting the suggestions given by the topic assessment panel.**)
(Please provide a brief description of the workload allocation)

MEMBER 1	Thirimanne S.U IT20225506
In most cases, what we are focusing is the direct answer towards the user requirement. We are focusing towards not only to satisfy users requirement but also suggest a step further. We could suggest, 'whats bad in that particular device', 'compare certain devices' and give suitable options for the user. Hence, by that comparison and so on, users who won't have a specific knowledge about the subject will be able to get better picture about the specified requirement.	

MEMBER 2	Rathnaweera R.P.W.G IT20237554
•Developing a new method for web scraping from scratch where this might be helpful to access untouched data or inaccessible data from various sources, this scrapped data can lead us to get more accurate and precise insights regarding the devices and repair centers. •Processing the user-generated video review contents related to the devices and converting those video reviews into text, using speech to text system where these generated text can be used by the deaf people ,since not all platforms provide subtitles to the speech, And also with the vocal patterns and language used by the speaker can analyze how the reviewers might feel about the device. •The gathered text using speech to text system is compared with already-given online reviews (Written reviews) for different devices on different websites If most of the comparisons are matched more than a certain percentage categorized them as positive and negative and provided those to the recommendation system.	

MEMBER 3	Senadheera H.A.M IT20125998
Currently when we want to buy a laptop what we do is, do some background research on the technical specifications the device must have, mostly this is done by asking from someone who does same kind of work as us. Then search for devices with those technical specifications and watch some reviews on it. This is a lengthier and time consuming task and need some sort of technical knowledge. But with what we are planning to develop, even with a person without any technical knowledge can find a device that suits for him by telling our system what he's going to do with the device. For an example if someone entered "I want a laptop for my software engineering degree for not more than 500000" system will process the natural language based query and find a good device which is suitable for a university student rather than facing the above mentioned hassle and most importantly it will give results for devices suitable to do the university related work rather than spending money for an overkill machine.	

MEMBER 4	Amanullath M.U IT20155520
• Although computer vision has advanced significantly in recent years, precisely identifying particular computer parts still presents several difficulties. We will be constructing deep learning models that can accurately and efficiently recognize many components. •In addition to identification the model will suggest better parts that the user can install to make their computer faster.	

DECLARATION (Students should add the Digital Signature)

"We declare that the project would involve material prepared by the Group members and that it would not fully or partially incorporate any material prepared by other persons for a fee or free of charge or that it would include material previously submitted by a candidate for a Degree or Diploma in any other University or Institute of Higher Learning and that, to the best of our knowledge and belief, it would not incorporate any material previously published or written by another person in relation to another project except with prior written approval from the supervisor and/or the coordinator of such project and that such unauthorized reproductions will construe offences punishable under the SLIIT Regulations.

We are aware, that if we are found guilty for the above mentioned offences or any project related plagiarism, the SLIIT has right to suspend the project at any time and or to suspend us from the examination and or from the Institution for minimum period of one year".

	STUDENT NAME	STUDENT NO.	Signature
1	Thirimanne S.U.	IT20225506	
2	Rathnaweera R.P.W.G.	IT20237554	
3	Senadheera H.A.M.	IT20125998	
4	Amanullath M.U.	IT20155520	