



Sri Lanka Institute of Information Technology

PROJECT REGISTRATION FORM

(This form should be completed and submitted on or before 3.00 PM, Friday 23rd February, 2018)

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 entails specifying the project title and the details of four members in the group, the internal supervisor (compulsory), 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	Analysis of Social Media Feedback to gain profit for Business Organizations
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RESEARCH GROUP	Artificial Intelligence and Data Science
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PROJECT NUMBER		(will be assigned by the lecture in charge)
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PROJECT GROUP MEMBER DETAILS: (Please start with group leader's details)

	STUDENT NAME	STUDENT NO.	CONTACT NO.	EMAIL ADDRESS
1	S. A. R. V. Silva (GROUP LEADER)	IT15087584	0777242575	rushan.v.s@gmail.com
2	K. D. Y. Viduranga	IT15035004	0756964448	viduranga008@gmail.com
3	K. V. N. Withanage	IT15003942	0774204604	kushaliwithanage@gmail.com
4	H. N. Mirando	IT15000354	0710403533	hiruninm95@gmail.com

SUPERVISOR

Yashas Mallawarachchi		
Name	Signature	Date

CO-SUPERVISOR (will be assigned by the Supervisor, if necessary)

Name	Signature	Date

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

Name	Affiliation	Contact Address	Contact Numbers	Signature/Date

ACCEPTANCE BY CDAP MEMBER

Name	Signature	Date

PROJECT DETAILS

Brief Description of your Research Problem:

Social media is becoming an integral part of life. Every day more and more people start using different types of social media like Facebook, Twitter etc. Because of this extensive usage of social media, most businesses nowadays are into social media marketing where they can reach a large crowd, mostly the young generation. Once they are on these social media, marketing their products, they would like to know how people are reacting to their products. Based on these feedback they get from people they have the ability to increase their profits making the correct decision at correct time. Although the social media directly provides the amount of people who like the product, the main disadvantage of it is, that they have to go through each and every comment to know what the people are feeling about the product and what they would like to see in the future from the business organization. Besides as busy and engaged people, people in the organization won't have enough time to read through these comments and list down their positive and negative points along with people's suggestions. Further it would be useful if they can have some suggestions for their next move to take the organization higher.

Description of the Solution:

The solution we suggest is an analytic tool which would provide all the necessary data, suggestions and predictions to profit the business organization by analyzing the feedback they get for what they post and display in their social media pages. This analyzation can be done in several steps. All the feedback getting through the social media can be categorized not just as positive and negative, but also for several other emotions. Based on these emotions, which products has the most liking can be decided along with what type products would bring more profit to the organization. Further, all the suggestions done by the people through their feedback can be extracted separately so there is no need to go through the feedback just to see what people has suggested for the improvement of the product and organization. Also the positive and negative points there in the feedback can also be extracted and displayed so they can improve their products. Based on all the feedback, likes, visits and related material, predictions can be done for the betterment of the company. Further can compare there own products with other products of their competitors to give them an idea what to improve to get their product to the peak.

Main expected outcomes of the project:

An analyzing tool which would contain following features will be developed based on product reviews and comments obtained from social media,

- **Reviews and comments will be labeled into several emotion categories such as angry, surprised, happy, sad etc.** Once the data is retrieved from the social media, they can be separated into several emotions to understand what people feel about a product more precisely. If a negative emotion is identified more frequently that product can be categorized as a failure and wise versa.
- **Suggestions will be extracted from the reviews and comments and displayed separately.** The actual meaning of a review or a comment could be understood and can separate the suggestion which is within it. This is time saving as there is no need to read through each and every comment.
- **Positive and negative points of the product will be listed.** Sometimes a review might contain a compliment tagged along with an complain. In these situation the outcome will be a positive point, which is to be improved, and a negative point, which is to be corrected. These positive and negative points of such comments can be listed so that it makes it easy to get the information at one place.
- **Predictions will be given as an assistance for future decisions.** For every business gaining profit is important. It would be very helpful if any assistance is provided for the decisions to be taken in the future. This puts less pressure on high level employees and product would reach a larger crowd.

WORKLOAD ALLOCATION (Please provide a brief description about the workload allocation)

MEMBER 1	Data Cleaning and Storage
<p>This area focuses on scraping data from public APIs of social media and preprocessing and storing them. We have to preprocess these data, so that those data can be used directly for the data analyzing parts. Preprocessing of these data includes removing duplicates, resolving issues such as incomplete, inconsistent and errors in raw data. This section is involved with data mining techniques.</p>	
MEMBER 2	Labeling comments/reviews using different emotions
<p>Comments/reviews are analyzed to label each comment/review with an emotion such as anger, disgust, fear, etc. There are six emotion categories that are widely used to describe humans basic emotions, anger, disgust, fear, happiness, sadness and surprise. These labels will be displayed on the tool according the post that the user will select. This section is basically involved with techniques of machine learning.</p>	
MEMBER 3	The criteria of providing suggestions to the user
<p>Comments/reviews are analyzed to give suggestions to the user for a specific post that he/ she selects. The meaning of the comments/ reviews will be identified using semantic analysis those information will be used to give suggestions to the user.</p>	

MEMBER 4	Predictions system for user
<p>External data will be used with all of the previously collected data of the user's business type and analyze them using machine learning techniques to give predictions to the user. Further, current trends will be used to give proper predictions to the user.</p>	

DECLARATION

"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".

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