# D. Y. PATIL COLLEGE OF ENGINEERING

# AKURDI, PUNE

**Department of Information Technology**

Final Year Project Work

Academic Year: **2020-2021**

|  |  |  |
| --- | --- | --- |
| Project Title | : | Sarcasm Detection Using Twitter Analysis |
| Project Area | : | Machine Learning |
| Internal Guide | : | Mrs. Amita Jajoo |



**Savitribai Phule Pune University**

**D.Y. Patil College Of Engineering,**

**Akurdi, Pune.**

**Department of Information Technology**

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**SEMESTER-I**

**D.Y. Patil College of Engineering, Akurdi**

**Department of Information Technology**

**UNDERTAKING BY STUDENTS**

We, the students of B.E.I.T. are hereby assured that we will follow all the rules and regulations of

SPPU related to the project work for the academic year 2020-21. The Project entitled- Sarcasm Detection Using Twitter Dataset will be fully designed and developed by us and no part of the project/full project will be designed and developed by any external entity or copied from some external resources. We are fully aware that copying or taking help of any external agency in the development of our project is totally unethical and illegal. The examiners have /University has full rights to initiate an action against us as per University norms if involved in unfair/illegal/unethical work.

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. No.** | **Roll No.** | **Name of Student** | **Signature** |
| 1. | B150088643 | Abuzar Tamboli |  |
| 2. | B150088624 | Satyam Jaimini |  |
| 3. | B150088583 | Sakshi More |  |
| 4. | B150088605 | Kasturi Pokharkar |  |
| 5. | B150088540 | Ganesh Karale |  |

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**Department of Information Technology**

**(With effect from Academic Year 2020-21)**

**Rules & Regulations**

1. All students must enter the correct information in the work book.
2. All the entries in the project workbook must be verified by the concerned project guide.
3. Students must report to their respective guide on project day as per the time table.
4. Activities of the project work should be completed as per the project plan only.
5. Project group must submit soft copies of Project Abstract, Project Report and Publications in PDF format only.
6. Project group members submit **two** hard copies of Project Report in the format provided by the department.
7. Project work books must be brought at the time of Project Reviews & Project Examination.
8. Any changes, if any, must be countersigned by the concerned project guide.
9. For project reviews and project examination, all students must report 15 minutes before the scheduled time.
10. For any query, concerned guide should be consulted.

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D.Y. Patil College of Engineering, Akurdi

Department of Information Technology

**(Academic Year 2020-21)**

**PROJECT WORK SCHEDULE**

|  |  |  |
| --- | --- | --- |
| **Sr.No.** | **Activity Scheduled** | **Date** |
|  | **SEMESTER-I** |  |
| 1. | Registration of Project Groups | Week 2 |
| 2. | Project Topic Revisit and Submission | Week 3 |
| 3. | Allocation of Guide | Week 4 |
| 4. | Submission of Abstract to Project Guide and Project Coordinator in the Prescribed Format | Week 4 |
| 5. | Project Review-I | Week 6 |
| 6. | Project Review-II | Week 10 |
| 7. | Verification of Project Work Book By Internal Guide (before submission of Preliminary Project Report) | Week 11 |
| 8. | Submission of Final Preliminary Project Report in Prescribed Format | Week 12 |
| 9. | External Term-work Evaluation (After Theory Examination) | As per Univ. Schedule |

**D.Y. Patil College of Engineering, Akurdi**

Department of Information Technology

**(Academic Year: 2020-21)**

**Project Group No.: 22**

**Project Title: Sarcasm Detection using Twitter Analysis.**

**GROUP DETAILS:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S.No.** | **Roll No.** | **Name of the Student** | **Mobile No.** | **Email id** | **T.E. Result** |
| 1. | B150088643 | Abuzar Tamboli | 9673550654 | abuzart1999@gmail.com |  |
| 2. | B150088624 | Satyam Jaimini | 9424721785 | jaimini.satyam999@gmail.com |  |
| 3. | B150088583 | Sakshi More | 8379883387 | sakshimore3006@gmail.com |  |
| 4. | B150088605 | Kasturi Pokharkar | 7768833207 | kasturipokharkar99@gmail.com |  |
| 5. | B150088540 | Ganesh Karale | 9763079093 | ganeshmandakini@gmail.com |  |

Name & Signature Internal Guide Name & Signature of External Guide

Mobile No. : Mobile No. :

Email Id : Email Id :

Signature of Head of Department (Department of Information Technology)

Mobile No.:

Email Id:

**D.Y. Patil College of Engineering, Akurdi**

Department of Information Technology

**(Academic Year:2020-21)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Project Title: Sarcasm Detection using Twitter Analysis.** | | | |
| **Project Group No.: 22** | | **Guide Name : Mrs. Amita Jajoo** | |
| **Group Members:** Abuzar Tamboli, Sakshi More, Satyam Jaimini, Kasturi Pokharkar, Ganesh Karale | | | |
| **Roll No./ Seat No.** | **Name of Student** | **Project Area** | **Project Platform** |
| B150088643 | Abuzar Tamboli | Machine  Learning | Jupyter Notebook |
| B150088583 | Sakshi More |
| B150088624 | Satyam Jaimini |
| B150088605 | Kasturi Pokharkar |
| B150088540 | Ganesh Karale |
| **Abstract**  Sarcasm is a sophisticated form of irony widely used in social networks and micro blogging websites. It is usually used to convey implicit information within the message a person transmits. Sarcasm might be used for different purposes, such as criticism or mockery. Twitter became one of the biggest web destinations for people to express their opinions, share their thoughts and report real-time events.  Given a set of tweets, we aim to classify each one of them depending on whether it is sarcastic or not. Therefore, from each tweet, we extract a set of features, refer to a training set and use machine learning algorithms to perform the classification. The features are extracted in a way that makes use of different components of the tweet, and covers different types of sarcasm. The set of tweets on which we run our experiments is checked and annotated manually.  Our system uses a combined approach of different methods like emotion detection, use of emoticons, patterns, etc. identifies whether the social site comment is sarcastic or not. So it is required to use a combined approach which takes different methods and identifies whether the comment is sarcastic or not. The sarcasm identification model is a novel approach based on emotion model. The sarcasm  identification model uses different algorithms, libraries.  Methods in the emotion detection phase and its result is used for sarcasm detection.The proposed method makes use of the different components of the tweet. Our approach makes use of Part-of-Speech tags to extract patterns characterizing the level of sarcasm of tweets. | | | |

**D.Y. Patil College of Engineering, Akurdi**

**(Academic Year :2020-21)**

**Semester - I**

**Weekly Planning Sheet**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Week No.** | **Activity Planned** | **Activity Completed Status** | **Student Signature** | **Guide Signature** |
| **Week 1** |  |  |  |  |
| **Week 2** |  |  |  |
| **Week 3** |  |  |  |
| **Week 4** |  |  |  |
| **Week 5** |  |  |  |  |
| **Week 6** |  |  |  |
| **Week 7** |  |  |  |
| **Week 8** |  |  |  |
| **Week 9** |  |  |  |  |
| **Week 10** |  |  |  |
| **Week 11** |  |  |  |
| **Week 12** |  |  |  |

Project Coordinator Internal Guide

**D.Y. Patil College of Engineering, Akurdi**

Department of Information Technology

**PROJECT REVIEW–I**

**(Academic Year: 2020-21)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Group id: 22** | | |  | | | **Date :23/10/2020** |
| **Project Title:Sarcasm Detection using Twitter Analysis** | | | | | | |
| **Sr.No.** | **RollNo.** | **Student Name** | | **Contact Details** | **Internal/ External Guide Details** | |
| 1. | B150088643 | Abuzar Tamboli | | 9673550654 | Guide Name: **Mrs. Amita Jajoo** | |
| 2. | B150088624 | Satyam Jaimini | | 9424721785 | Mentor Name, email & Mobile No**. 9011301333** | |
| 3. | B150088583 | Sakshi More | | 8379883387 |
| 4. | B150088605 | Kasturi Pokharkar | | 7768833207 |
| 5. | B150088540 | Ganesh Karale | | 9763079093 |

**REVIEW-I CHECKLIST: FINALIZATION OF SCOPE 25 Marks**

|  |  |
| --- | --- |
| **PROJECT STATEMENT** |  |
| 1. Is the statement short and concise (10-20 words maximum)? | Y/N/NA/NC\* |
| 1. Does the statement give clear indication about what your project will accomplish? | Y/N/NA/NC\* |
| 1. Can a person who is not familiar with the project understand the scope of the project by reading the Project Problem Statement? | Y/N/NA/NC\* |
| **REQUIREMENT: SCOPE AND OBJECTIVES** |  |
| Does the Scope and Objectives establish the "context" for the proposed project by referencing to the following elements: | Y/N/NA/NC\* |
| 1. Area all aspects of the requirements document (i.e., Functional Spec.) addressed in the design? | Y/N/NA/NC\* |
| 1. Is the architecture/ block diagram well defined and understood? | Y/N/NA/NC\* |
| 1. The project's objective of study (what product, process, resource, etc.) is being addressed | Y/N/NA/NC\* |
| 1. The project's purpose: is the purpose of the project addressed properly (why it's being pursued: to evaluate, reduce, increase, etc.)? | Y/N/NA/NC\* |
| 1. The project's viewpoint: is the project's viewpoint understood? (who is the project's end user)? | Y/N/NA/NC\* |
| 1. Is the project goal statement in alignment with the sponsoring organization's business goals and mission? | Y/N/NA/NC\* |
| **ANALYSIS** | Y/N/NA/NC\* |
| 1. Is information domain analysis complete, consistent and accurate? | Y/N/NA/NC\* |
| 1. Is the problem statement categorized in identified areas and targeted towards specific areas therein? | Y/N/NA/NC\* |
| 1. Are external and internal interfaces properly defined? | Y/N/NA/NC\* |
| 1. Does the Use Case Model properly reflect the actors and their roles and responsibilities? | Y/N/NA/NC\* |
| 1. Are all requirements traceable to system level? | Y/N/NA/NC\* |
| 1. Is a similar type of methodology / model used for existing work? | Y/N/NA/NC\* |
| 1. Are requirements consistent with schedule, resources and budget? | Y/N/NA/NC\* |

**D.Y. Patil College of Engineering, Akurdi**

Department of Information Technology

**PROJECT REVIEW–I**

**(Academic Year: 2020-21)**

**STUDENT PERFORMANCE EVALUATION**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Student's Contribution Performance:** | | | | | |
| **Particulars** | **Marks (25M)** | | | | |
| **Group Members** | | | | |
| **1** | **2** | **3** | **4** | **5** |
| 1. Background and Topic (4M) |  |  |  |  |  |
| 1. Project Scope and Objectives (4M) |  |  |  |  |  |
| 1. Literature Survey (5M) |  |  |  |  |  |
| 1. Project Planning (4 M) |  |  |  |  |  |
| 1. Presentation Skills (4M) |  |  |  |  |  |
| 1. Question and Answer (4M) |  |  |  |  |  |
| **Total (25M)** |  |  |  |  |  |
| **Comments (if any)** | | | | | |

# To be filled by an internal guide & reviewer(s) only.

\* Whether the presentation / evaluation is as per the schedule. : YES / NO (If NO mention the reasons for the same.)

**Review – I: Deliverables**

• Problem Statement / Title

• Purpose, Scope, Objectives

• Abstract (System Overview)

• H/W,S/W & other requirement, Test Environment/Tools

• (System Overview- Proposed system & Proposed outcome)

* Architecture & DFD

• References

• Project Plan 1.0

Name & Signature of evaluation committee-

Name of Reviewer 1 Name of Reviewer 2 Name of Internal Guide

**D.Y. Patil College of Engineering, Akurdi**

Department of Information Technology

**PROJECT REVIEW–II**

**(Academic Year: 2020-21)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Group id:** | | **22** | | | | **Date : 12/ 01/2021** |
| **Project Title: Sarcasm Detection Using Twitter Dataset** | | | | | | |
| **Sr.No.** | **RollNo.** | | **Student Name** | **Contact Details** | **Internal/ External Guide Details** | |
| 1. | **B150088643** | | **Abuzar Tamboli** | **9673550654** |  | |
| 2. | **B150088583** | | **Satyam Jaimini** | **9424721785** |  | |
| 3. | **B150088624** | | **Sakshi More** | **8379883387** |  | |
| 4. | **B150088605** | | **Kasturi Pokharkar** | **7768833207** |  | |
| 5. | **B150088540** | | **Ganesh Karale** | **9763079093** |  | |

**REVIEW-II CHECKLIST: DESIGN 25 Marks**

|  |  |
| --- | --- |
| **DESIGN** | Y/N/NA/NC\* |
| 1. Are requirements reflected in the system architecture? | Y/N/NA/NC\* |
| 1. Does the design support both project (product) and project goals? | Y/N/NA/NC\* |
| 1. Does the design address all the issues from the requirements? | Y/N/NA/NC\* |
| 1. Is effective modularity achieved and modules are functionally independent? | Y/N/NA/NC\* |
| 1. Are structural diagrams (Class, Object, etc.) well defined and understood? | Y/N/NA/NC\* |
| 1. Are all class associations clearly defined and understood? (Is it clear which classes provide which services)? | Y/N/NA/NC\* |
| 1. Are the classes in the class diagram clear? (What do they represent in the architecture design document?) | Y/N/NA/NC\* |
| 1. Is inheritance appropriately used? | Y/N/NA/NC\* |
| 1. Are the multiplicities in the use case diagram depicted in the class diagram? | Y/N/NA/NC\* |
| 1. Area behavioral diagrams (use case, sequence, activity, etc.) will be defined and understood? | Y/N/NA/NC\* |
| 1. Is aggregation/ contaminant (if used) clearly defined and understood? | Y/N/NA/NC\* |
| 1. Does each case have clearly defined actors and input/ output? | Y/N/NA/NC\* |
| 1. Is all concurrent processing (if used) clearly understood and reflected in the sequence diagrams? | Y/N/NA/NC\* |
| 1. Are all objects used in a sequence diagram? | Y/N/NA/NC\* |
| 1. Does the sequence diagram match the class diagram? | Y/N/NA/NC\* |
| 1. Are the symbols used in all diagrams corresponding to UML standards? | Y/N/NA/NC\* |
| 1. Does code completely & correctly implement the design? | Y/N/NA/NC\* |
| 1. Does code comply with coding standards? | Y/N/NA/NC\* |
| 1. Is code well structured ,consistent in style & consistently formatted? | Y/N/NA/NC\* |
| 1. Are basic functions in the design coded? | Y/N/NA/NC\* |
| 1. Is code clearly & adequately documented? | Y/N/NA/NC\* |
| 1. Is test results highlighted? | Y/N/NA/NC\* |

**D.Y. Patil College of Engineering, Akurdi**

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**PROJECT REVIEW–II**

**(Academic Year: 2020-21)**

**STUDENT PERFORMANCE EVALUATION**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Students' Contribution and Performance** | | | | | |
| **Particulars** | **Marks (25 M)** | | | | |
| **Group Members** | | | | |
| **1** | **2** | **3** | **4** | **5** |
| 1. System Architecture & Literature Survey (Review-I) |  |  |  |  |  |
| 1. Project Design (4 M) |  |  |  |  |  |
| 1. Techniques/Methodology /Algorithms and Project Features (3 M) |  |  |  |  |  |
| 1. Project Planning (4 M) |  |  |  |  |  |
| 1. Basic details of Implementation( Working module) (4 M) |  |  |  |  |  |
| 1. Presentation Skills ( 4 M) |  |  |  |  |  |
| 1. Question and Answer (2 M) |  |  |  |  |  |
| 1. Summarization of Ultimate findings of the Project (2 M) |  |  |  |  |  |
| 1. Test Results(2 M) |  |  |  |  |  |
| **Total (25 M)** |  |  |  |  |  |
| **Comments (if any)** | | | | | |

# To be filled by internal guide & reviewer(s) only.

\* Whether the presentation / evaluation is as per the schedule. : YES / NO (If NO mention the reasons for the same.)

**Review-II : Deliverables**

* Problem Statement / Title
* Abstract
* Introduction
* Literature Survey (comparison with existing system)
* Methodology
* Design / algorithms / techniques used
* Modules Split-up
* Proposed System
* Software Tools/Technologies to be used
* Working module
* Partial Report (Semester – I)
* Project Plan 2.0

Name & Signature of Evaluation Committee –

Name of Reviewer 1 Name of Reviewer 2 Name of Internal Guide

**D.Y. Patil College of Engineering, Akurdi**

Department of Information Technology

**Participation in Project Competition/Event**

**(Academic Year :2020-21)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr.No.** | **Name & Place of Project Competition/ Exhibition** | **Date** | **Certificate/ Prizes won (if any)** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**Paper Publication/ Presentation**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr.No.** | **Name of the Organizing Society** | **Date** | **Certificate/ Prizes won (if any)** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**\* Photocopy of the certificate must be attached to this booklet.**

Project Coordinator Internal Guide