Mini-Project – 2B Web based on ML (ITM 601)

PROPOSAL

SMS Spam Detector

T. E. Information Technology

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Mini Project Proposal

(strictly one page)

Project Title	**SMS Spam Detector**
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Situation/Problem/Opportunity/Need	The popularity of mobile devices is increasing day by day as they provide a large variety of services by reducing the cost of services. Short Message Service (SMS) is considered one of the widely used communication service. However, this has led to an increase in mobile devices attacks like SMS Spam. In this project, we present a approach that can detect and filter the spam messages using machine learning classification algorithms.
Problem Statement	In the current digital world due to everything being possible online including online transactions of huge amount of money, the number of frauds have increased which has resulted in people loosing money to fraudsters. This is done by smishing attack in which the fraudster sends fake SMS messages pretending to be a reputable company in order to get individuals to reveal their personal information, passwords or credit card details.
Objectives	Our SMS Spam Detector checks the SMS entered across various datasets and gives a "Clear" message if the SMS is original and sent from a genuine organization and it will give a warning "Alert" message if the SMS is sent from a fraudster pretending to be a genuine organization. This will help our users to differentiate between spam and ham messages thus saving them from fraud.
Method /Approach (Steps/Modules/Proposed Work/Architectural Dia.)	For this project we need a dataset of spam messages and fetch it via python pickle file. We will keep all the list of spam messages in the csv file. We will use Naive Bayes Algorithm because Naive Bayes is a simple and a probabilistic traditional machine learning algorithm. It was very popular even in the past for solving problems like spam detection
Success Criteria (Advantages / Performance Metrics)	It will help you to detect whether the SMS is a ham or spam. It can save you from smishing attacks.
Resources (People ,Time, hardware / software resources, dataset, online survey with goggle form, cost, other)	PC, HTML, CSS, Python, Flask, Spam messages dataset

Risk and Dependencies	If the spam message is not present in the dataset then the spam detector will not give precise result.
Remark (can be continued as BE Project/Outhouse Project)	
References (IEEE Format)	[1] Online: Available: http://cs229.stanford.edu/proj2013/ShiraniMehr-SMSSpamDetectionUsingMachineLearningApproach.pdf Accessed on 24th January 2022. [2] Online: Available: https://journalofbigdata.springeropen.com/articles/10.1186/s40537-015-0029-9 Accessed on 23th January 2022.