Define Problem / Problem Understanding

In this milestone, we will see the define problem and problem understanding.

Specify The Business Problem

Over recent years, as the popularity of mobile phone devices has increased, Short Message Service (SMS) has grown into a multi-billion dollar industry. At the same time, reduction in the cost of messaging services has resulted in growth in unsolicited commercial advertisements (spams) being sent to mobile phones. Due to Spam SMS, Mobile service providers suffer from some sort of financial problems as well as it reduces calling time for users. Unfortunately, if the user accesses such Spam SMS they may face the problem of virus or malware. When SMS arrives at mobile it will disturb mobile user privacy and concentration. It may lead to frustration for the user. So Spam SMS is one of the major issues in the wireless communication world and it grows day by day.

Business Requirements

A business requirement for an SMS spam classification system would include the ability to accurately identify and flag spam messages, protect customers from unwanted or harmful messages, and comply with industry regulations and laws regarding spam messaging. Additionally, the system should be able to handle a high volume of messages, integrate with existing systems and databases, and provide reporting and analysis capabilities to track performance and improve the system over time. The system should also have an easy-to-use interface and be easy to maintain and update.

LITERATURE SURVEY

Globally, short messaging service (SMS) is one of the most popular and also most affordable telecommunication service packages. However, mobile users have become increasingly concerned regarding the security of their client confidentiality. This is mainly due to the fact that mobile marketing remains intrusive to the personal freedom of the subscribers [1]. SMS spamming has become a major nuisance to the mobile subscribers given its pervasive nature. It incurs substantial cost in terms of lost productivity, network bandwidth usage, management, and raid of personal privacy [2].

Thus, in short spamming threatens the profits of the service providers [3], [4]. Mobile SMS spams frustrate the mobile phone users, and just like e-mail spams, they cause new societal frictions to mobile handset devices [5]. Email spam is sent or received via the World Wide Web, while the SMS mobile spam is typically broadcasted via a mobile network.

Spam can be described as unwanted or unsolicited electronic messages sent in bulk to a group of recipients. The messages are characterized as electronic, unsolicited, commercial, mass constitutes a growing threat mainly due to the following factors: 1) the availability of low-cost bulk SMS plans; 2) reliability (since the message reaches the mobile phone user); 3) low chance of receiving responses from some unsuspecting receivers; and 4) the message can be personalized. Mobile SMS spam detection and prevention is not a trivial matter. It has taken on a lot of issues and solutions inherited from relatively older scenarios of email spam detection and filtering [8]. Unsolicited SMS text messages are a common occurrence in our daily life and consume communication time, bandwidth and resources. Although the existing spam filters provide some level of performance, the spams misinform receivers by manoeuvring data samples [9].

SOCIAL OR BUSSINESS IMPACT

Social impact: it can help protect individuals from unwanted and potentially harmful messages. Spam message can include phishing attempts,scamps and fraud, which can have serious financial and personal consequences for recipients.

Bussiness impact: it can help protect their customer and improve their reputation. Spam messages can harm a bussiness reputation and lead to customer complaints and lost business.