**MAKERERE UNIVERSITY**

COLLEGE OF COMPUTING AND INFORMATION SCIENCES

DEPARTMENT OF NETWORKS

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RECESS TERM 2 (BSE 2301)

CONCEPT PAPER FOR:

CHAT ANALYSIS WITH NSSF CUSTOMER SUPPORT DEPARTMENT

**PROJECT MEMBERS (GROUP 023)**

|  |  |  |  |
| --- | --- | --- | --- |
| **NAME** | **REG NO** | **STUDENT NO** | **SIGNATURE** |
| SSEMAKULA JULIUS | 16/U/11606/PS | 216008551 |  |
| OCIBA JAMES | 16/U/1858 | 216001838 |  |
| BUYINGA NAMBAFU ISAAC | 16/U/4484/EVE | 216004860 |  |
| NUWAGABA DRAKE MILTON | 16/U/10529/EVE | 216016892 |  |

**PROJECT LEADER**

SSEMAKULA JULIUS

**SUPERVISOR:** MBABAZI ISAAC

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**BACKGROUND:**

NSSF signifies National Social Security Fund is a national saving program mandated by the Ugandan government for the provision of social security facilities to workers in Uganda. It was created in 1985 with an aim of protecting employees from the unpredictability of economic and social life. Further down are benefits of NSSF in Uganda.

**Survivor benefits:**

Survivor benefits are paid to immediate surviving families, which include the children and spouse of a deceased member. If an NSSF member does not have any children or spouse, benefits are paid to the parents if they depended exclusively on the departed member. This is another vital benefit since it enables the remaining family members to continue living under good conditions.

**Age benefits**:

This particular benefit is provided to NSSF members who have attained 55 years, which is the recommended retirement age. 50 year old Ugandan citizens can also claim age benefits provided they have not been employed for about one year. The main aim of this benefit is to provide the elderly an essential income security through the disbursement of their accumulated savings during the time they were still employed.

**Emigration grants:**

These benefits are disbursed to contributing NSSF members who are looking to leave Uganda permanently. It is actually paid to both Ugandan members as well as foreign members. The foreign workers who apply for emigration grants are usually required to cancel their work permits through the immigration department.

**Invalidity benefits:**

This benefit offered by NSSF is disbursed to current members who no longer have the capability of seeking gainful employment due to mental or physical incapacitation. In order to qualify for this benefit, you will require certification from a physician.

The NSSF has several demerits as well. The major disadvantage of NSSF in Uganda is that the process of retrieving the benefits is very long and time consuming.

NSSF provides online Help/Chat where a customer is required to enter their Customer Names, NSSF number, Email address, Phone Number and then writes a message describing why they need help from NSSF. This information from the Customer is received by the Customer Support department on the side of NSSF which is responsible for replying to the messages. However, NSSF as an organization has more than one site. When a customer sends a messages to via any of their sites, the sent message shows the Customer support department the site it has come from and the country from which it is from. It also includes the IP address of the machine that has been used to send the Message.

**Project purpose:**

Many countries intercept communication and analyze messages as an intelligence technique, the largest such system is Echelon run jointly by the USA, Canada, UK, Australia, and New Zealand. The openly - acknowledged analysis of intercepted data is to search messages for keywords, discard those messages that do not contain keywords and pass those that do to analysts for further processing.

NSSF data provides real world data that is debatably of the same kind as data from the Echelon system, a set of messages about a wide range of topics from a large group of people who do not form a closed set.

The project problem is how to measure the customer services and the influence of those factors for the customers and NSSF organization.

We examine the structure of the NSSF email dataset, looking for what it can tell us about how email basing on the messages sent, and also for what it can tell us about how individuals use email to communicate to NSSF in order to provide customer support.

The significance of this project is to analyze the dataset and identify key factors that influence functionality of NSSF organization and the negative factors basing on the emails sent by various customers. The project will help in determining the possible solutions to guide the NSSF on how to go about with their customers’ needs, expectations and adjustments in their services.

**PROJECT DESCRIPTION**

**OBJECTIVES**

To analyze the email content and identify the most queried subject or what visitors complained of most.

To get rid of inapplicable data.

To also analyze employee efficiency because it is not the same for the different employees.

To use this data and predict the time periods when visitors use the system most so that NSSF customer care is prepared.

To visualize this data and based on the feedback of visitors on certain issues, NSSF can know how better to sensitize the services it offers.

To visualize this data and know which search engines that the visitors use most to access their system.

To also visualize this data and know where most visitors come from.

**METHODOLOGY:**

Well knowing that we are going to develop this system incrementally by building a series of prototypes and constantly adjusting them, we are going to use the agile method. As for the case of analyzing, predicting and visualization, we are going to use a statistical language called R.

**EXPECTED ACCOMPLISHMENTS**

Improve customer care deliverance.

Improvement in efficiency of certain workers.

Improvement on responsiveness to the chatting between visitors and NSSF customer care.

NSSF will through the analysis given find a better way to advertise its services to both visitors and those who are not yet part of the fraternity.

**INDICATORS OF ACHIEVEMENT**

Reduction in frustration of certain visitors since most of queries will be attended to.

More visitors putting trust in NSSF by trusting them with their money or more people will be able to join NSSF.

**BUDGET AND SUPPORT.**

Our team on this project is eligible for this project because we as a group of four members are well equipped with the required skills to support this project.

This is so because our budget for this particular we will not require any form of liquid capital in analyzing the data since most of the required project prerequisites are provided with in the observations of the data sets therefore this means our team of four personnel will not conduct any

Congress Control Number: 2010943248, ISBN-13: 978-0-538-48161 form of field work activity in collecting any form of information since it has already been catered for in the project data collected.

Since our team will utilize the maximum available resources, this makes our team eligible for this particular project since our budget costs are minimal and therefore costs are to be less injected and catered for during the course of conducting the project.

**References:**

Books [1] Gary B Sherry, Harry J Rosenblatt, System analysis and design ninth edition, Library of -8,ISBN-10: 0-538-481617,Course Technology, 20 Channel Center Street, Boston, MA 02210, US

<https://nssfug.org>