KATHMANDU UNIVERSITY

Department of Computer Science and Engineering

Dhulikhel, Kavre

A Mini Research Weekly Report (Week 2)

on

"Improving the UI/UX Design of Nepal Stock Exchange Trade Management System"

[COMP 341]

(For partial fulfillment of 3rd year/ 2nd semester on Computer Science)

Submitted by:

Aditya Chaudhary (10)

Shyarnis Ghising (17)

Abhinav Joshi (21)

Rujan Luitel (37)

Submitted To:

Dr. Sushil Shrestha

Department of Computer Science and Engineering

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Weekly Task

1. Prepare a document explaining, why have you selected these members in your team? What is the case (overview)? Why have you taken this particular case for this mini research project? Problem statement of the case? Common understanding between the team members to work on this case? Members portfolio. What are the probable solutions of the problems you stated (Hypothesis)? How innovative do you think yourcase is? Will the outcome be viable?

2. Discuss with at least two different groups of your class regarding your case. Start suggesting and analyzing the pros and cons of the case, Re-document 2.1 after getting feedback.

Task 1

Why have you selected these members in your team?

In selecting the members for our team in this mini research project, we considered several factors that align with the goals and requirements of the project. The reasons for selecting each team member are as follows:

1. **Expertise and Knowledge:**

   Each member brings a unique set of skills and knowledge relevant to the project. Each of us has a good knowledge of the stock market. My team member expertise enhances the team's capabilities and enables us to approach the research project from diverse perspectives.

2. **Background and Experience:**

   The team members have backgrounds and experiences that complement the objectives of the project. Their past experiences in research, interest in stock market or related fields provide valuable insights and contribute to a comprehensive understanding of the subject matter.

3. **Collaboration and Teamwork:**

   Effective teamwork is essential for the success of any project. The selected team members have demonstrated strong collaboration skills in previous group projects, academic pursuits, or professional settings. They are proactive, reliable, and willing to contribute to the team's collective efforts.

4. **Communication Skills:**

   Clear and effective communication is vital for project coordination, knowledge sharing, and presenting findings. The chosen team members possess strong communication skills, both written and verbal, allowing for effective dissemination of ideas, discussions, and reporting. Strong communication skills also help in taking surveys for our research.

5. **Time Commitment:**

   The team members have demonstrated a commitment to the project by allocating sufficient time and effort to meet project deadlines and

milestones. They have shown dedication and reliability, ensuring that the project progresses smoothly and on schedule. My team members gather together whenever we have to take a survey.

6. **Compatibility and Synergy:**

   The team members have successfully worked together in the past or have shown compatibility during team-building exercises. Their ability to collaborate, respect differing opinions, and leverage each other's strengths contributes to a harmonious and productive work environment.

7. **Motivation and Interest:**

   The selected team members have a genuine interest in the research project and are motivated to explore and find solutions to the identified problem. Their enthusiasm and curiosity ensure a high level of engagement and dedication throughout the project.

By carefully considering these factors, we have selected a team with diverse expertise, strong collaboration skills, effective communication, commitment, compatibility, and shared motivation. This combination of skills and qualities ensures that the team is well-equipped to tackle the research project and achieve the desired outcomes successfully.

Task 2

What is the case(overview)? Why have you taken this particular case for this mini-research project?

The case for our mini-research project is centred around the user interface of NEPSE TMS website. The NEPSE TMS website serves as a crucial platform for stock trading and investment in Nepal, providing users with access to market data, portfolio management tools, and trading functionalities. Our project focuses on identifying and addressing problems within this website to enhance user experience, and functionality.

Reasons for Selecting this Case:

1. **Relevance and Significance**:

   The NEPSE TMS website plays a vital role in the Nepali stock market ecosystem. By conducting research and proposing solutions for this platform, we aim to address real-world challenges faced by investors, traders, and individuals interested in stock trading.

2. **User Impact:**

   The NEPSE TMS website directly impacts a large user base, including novice investors, experienced traders, and financial professionals. By improving its usability and features, we can enhance the overall trading experience and support informed decision-making.

3. **Scope for Improvement**:

   Through preliminary analysis, we have identified potential issues and limitations within the NEPSE TMS website, such as slow loading times, inconsistent user interface, and limited educational resources. We have discovered that it has a menu as well. These areas present opportunities for improvement and provide a focused scope for our research project.

4. **Practical Application**:

   The findings and recommendations from our research can have practical applications in enhancing the NEPSE TMS website. Implementing our

proposed solutions can result in tangible benefits for users, such as improved usability and enhanced data analysis tools.

5. **Feasibility and Accessibility**:

    The NEPSE TMS website is publicly accessible, allowing us to conduct thorough research and analysis. Availability of data, user feedback, and the website's online presence facilitate our examination of the existing issues and the implementation of proposed solutions.

Selecting the NEPSE TMS website as the case for our mini-research project provides us with a practical, relevant, and accessible context to address real-world challenges, improve user experience, and contribute to the advancement of online trading platforms in Nepal.

Task 3

Problem statement of the case?

Problem Statement: Enhancing User Interface Design in the NEPSE TMS Website.

The Nepse TMS website currently faces usability and user interface issues that hinder the overall user experience. These issues include inconsistent design elements, limited educational resources for novice investors, and a lack of customization and personalization options. These factors can result in user frustration, difficulty navigating the platform, and a suboptimal trading experience. Thus, the problem statement for our mini-research project is to address the usability and user interface issues in the NEPSE TMS website. By tackling these problems, we aim to improve the overall user experience, provide better tools and resources for investors, and enhance the trust and confidence of users in the platform.

Task 4

Common understanding between the team members to work on this case?

To ensure a common understanding and alignment among team members working on the NEPSE TMS website case, the following aspects should be addressed:

1. **Objectives and Goals**

   Clearly define and communicate the objectives and goals of the research project. This includes identifying the specific areas of focus, such as user experience improvements and functionality enhancements, and establishing the desired outcomes.

2. **Problem Statement**

   Establish a shared understanding of the identified problem statement, encompassing the usability and user interface issues within the NEPSE TMS website. Discuss and agree upon the significance of these issues and their impact on users and the overall trading experience.

3. **Roles and Responsibilities**

   Assign specific roles and responsibilities to each team member based on their expertise and strengths. Clearly define individual responsibilities for tasks such as data gathering, analysis, literature review, solution proposal, and report writing. This ensures a well-coordinated effort and prevents duplication of work.

4. **Communication and Collaboration**

   Establish effective channels of communication within the team, such as regular meetings, email updates, or project management tools. Foster an environment that encourages open dialogue, active participation, and the sharing of ideas and insights. Ensure that all team members are aware of the progress, challenges, and decisions made throughout the project.

5. **Timeline and Deadlines**

   Develop a timeline with clear milestones and deadlines for the different phases of the research project. This helps the team members manage their

time effectively, stay on track, and deliver their contributions in a timely manner.

By establishing a common understanding in these key areas, the team members will be aligned in their approach, have a shared perspective on the case, and work collaboratively towards achieving the research objectives and goals.

Task 5

What are the probable solutions of the problems you stated (Hypothesis)? How innovative do you think your case is? Will the outcome be viable?

Probable Solutions (Hypothesis) for the Problems Identified:

1. **User Experience:**

    a. Enhance User Interface Design:

   > Conduct a user interface redesign to create a consistent and intuitive layout, incorporating user feedback and best practices in UI design.

    b. Expand Educational Resources:

   > Develop and integrate educational materials, tutorials, and guides to help novice investors understand stock trading concepts and make informed decisions.

    c. Customization Options:

   > Provide users with customization features, such as personalised light mode and dark mode.

2. **Innovation and Viability of the Case:**

   > The proposed solutions for enhancing user experience in the NEPSE TMS website are innovative to a certain extent, as they involve the application of current best practices and technologies in the field of web development, user experience design. While similar solutions have been implemented in various online trading platforms, the context specific to the NEPSE TMS website and the Nepali stock market makes this case unique.

The outcome of the research project can be viable if the proposed solutions are effectively implemented. By improving user experience, addressing usability issues, the NEPSE TMS website can attract and retain more users, increase user satisfaction, and build trust in the platform. This, in turn, can lead to increased

trading activity, improved market participation in an online trading ecosystem in Nepal.

The viability of the outcome also depends on various factors, including the support and resources allocated to implement the proposed solutions, the willingness of the relevant stakeholders to adopt changes, and the ability to address any regulatory or technical constraints. It is essential to consider these factors and collaborate closely with the relevant parties to ensure the practicality and viability of the proposed solutions within the NEPSE TMS website context.