Ryerson University

Department of Electrical, Computer, & Biomedical Engineering
Faculty of Engineering & Architectural Science

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GRL Model: RLMS

Part I: The Goal Model

Actors:

1. Students
2. Referees
3. University

Goals and Softgoals:

1. Students
    - **Goal**: Track Progress of Recommendation Letters
        - Importance: High (100)
    - **Softgoal**: Minimize Work
        - Importance: High (90)
2. Referees
    - **Softgoal**: Minimize Time Writing Letters
        - Importance: High (80)
    - **Softgoal**: Avoid New Usernames and Passwords
        - Importance: Very High (90)
3. University
    - **Goal**: Ensure Authenticity of Letters
        - Importance: Critical (100)
    - **Softgoal**: Minimize Acquisition Cost
        - Importance: Medium (75)

Tasks and Their Contributions:

1. Secure Input of Reference Letters and Scores
    - Create Account for Referees:
        - Ensure Authenticity: +70
        - Avoid New Usernames and Passwords: -50
        - Minimize Acquisition Cost: -30
    - Use Hyperlink with Unique Session ID:
        - Ensure Authenticity: -50
        - Avoid New Usernames and Passwords: +90
2. Input of Referee's Coordinates
    - Students Input Only the Name and Email:
        - Minimize Work: -20 (for Students)
        - Minimize Time: +30 (for Referees)
    - Students Input All Details Upfront:
        - Minimize Work: -60 (for Students)
        - Minimize Time: +10 (for Referees)
3. Email Notifications to Students
    - Notify Upon Each Submission:
        - Track Progress: +80 (for Students)

- Notify Once All Letters Are Received:
    - Track Progress: +30 (for Students)

4. Email Notifications to Referees
    - Single Email Notification:
        - Minimize Time: +20 (for Referees)
        - Referee Reminder Effectiveness: -30 (Assuming this negatively impacts referees' awareness)
    - Initial and Reminder Emails:
        - Minimize Time: +40 (for Referees)
        - Referee Reminder Effectiveness: +70 (Improves referees' awareness)

Part II: Goal Model Analysis

16 Different Stratigies:

1. Account creation, Basic info by students, Notify upon each submission, Single email notification
2. Account creation, Basic info by students, Notify upon each submission, Initial and reminder emails
3. Account creation, Basic info by students, Notify once all received, Single email notification
4. Account creation, Basic info by students, Notify once all received, Initial and reminder emails
5. Account creation, All details by students, Notify upon each submission, Single email notification
6. Account creation, All details by students, Notify upon each submission, Initial and reminder emails
7. Account creation, All details by students, Notify once all received, Single email notification
8. Account creation, All details by students, Notify once all received, Initial and reminder emails
9. Hyperlink, Basic info by students, Notify upon each submission, Single email notification
10. Hyperlink, Basic info by students, Notify upon each submission, Initial and reminder emails
11. Hyperlink, Basic info by students, Notify once all received, Single email notification
12. Hyperlink, Basic info by students, Notify once all received, Initial and reminder emails
13. Hyperlink, All details by students, Notify upon each submission, Single email notification
14. Hyperlink, All details by students, Notify upon each submission, Initial and reminder emails
15. Hyperlink, All details by students, Notify once all received, Single email notification
16. Hyperlink, All details by students, Notify once all received, Initial and reminder emails

Maximize satisfaction of Students

In order to maximize the satisfaction of students, the overall workload needs to be minimal while maximizing the flow of information regarding recommendation letters. Using the 16 different strategies, it is evident that the strategies that prioritize minimizing student workload while providing frequent updates on their references would reach the highest satisfaction. The satisfaction strategy includes the creation of an account, inserting the name and email of the student, notification after each letter, and initial and reminder emails. This includes a Workload of -20, and an information flow of +80. The second satisfaction strategy includes the Hyperlink to the student support form, notification after each letter, and initial and reminder emails. Although this strategy is beneficial for the referees, it indirectly benefits the student satisfaction score as it includes the same values of -20 for Workload and +80 for information flow.

Stakeholders' Strategies with a satisfaction level above 50

In order to meet the criteria of having a satisfaction level of about 50 for all three stakeholders, we need to consider the following impacts. A preference for low workload and high information flow for students, useability and efficient reminders without extra workload for referees, and secure methods for authenticity for the University. A strategy that uses a hyperlink (easing referees' login processes), requires students to input only their name and email (minimizing their initial workload), sends notifications upon each submission (keeping students informed), and employs initial and reminder emails (ensuring referees remember to submit) will ultimately offer a balanced approach to keep all three stakeholders at a satisfaction level about 50. Due to complications using the software, the only way to determine the stakeholder's strategy is by manually calculating the average for each. Strategy Numbers 1 and 2 both display an average satisfaction level of at least 50 with each stakeholder.