Assignment No : 2

Title: GOMS model – Answer Assessment Questions.

Problem Statement: Implement GOMS modelling technique to model user's behavior in given scenario

Learning Objectives:

Usability assessment of a given interface

Model user behavior in terms of GOMS (Goals, Operators, Methods and Selection

Learn how to predict steps/time it will take a user to carry out a goal using GOMS Model.

Learning Outcomes:

Improve human-computer interaction efficiency by eliminating useless or unnecessary interactions.

Using GOMS modelling for usability information when the system is in the earliest of design phases.

Improve the performance of a cognitive skill, eliminate unnecessary operators from the method used to do the task.

Provides hierarchical task description for a specific activity.

Requirements:

Specific scenario of user-interaction – Answer Assessment Questions.

Theory:

Goals, operators, methods, and selection rules is a method derived from human-computer interaction (HCI) and constructs a description of human performance. The level of granularity will vary based on the needs of the analysis.

The Goal is what the user wants to accomplish.

The Operator is what the user does to accomplish the goal.

The Method is a series of operators that are used to accomplish the goal.

Selection rules are used if there are multiple methods, to determine how one was selected over the others.
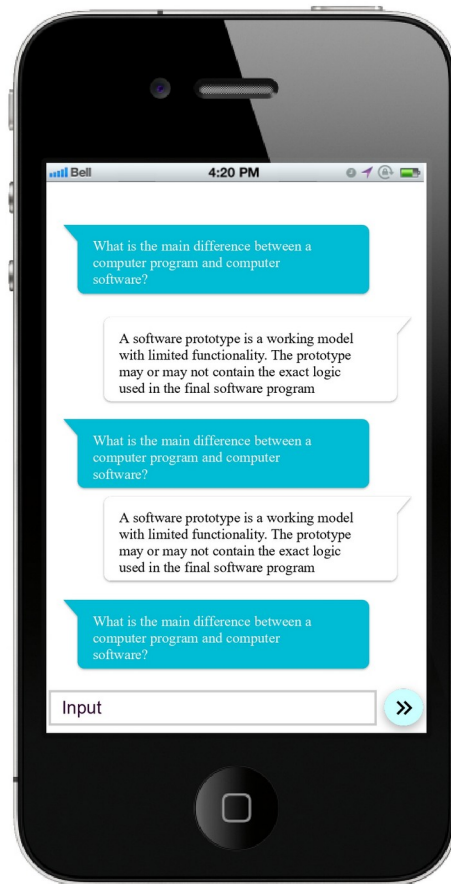
Goal: Answer Assessment Questions.

Operators:

1. **O1**: Move the mouse pointer to a specific location.

2. **O2**: Click the left mouse button.

3. **O3**: Type on the keyboard.

4. **O4**: Read information on the screen.

5. **O5**: Make decisions based on displayed information.

Methods:

Method 1: Typing Response:

M1: Perceive: Read the question.

M2: Retrieve: Recall related knowledge or information.

M3: Decide: Compose an answer.

M4: Act: Physically type the response in the chat input field and click "Send."

Method 2: Copy-Paste Response:

M1: Read the question.

M2: Recall a pre-existing answer.

M3: Determine if the pre-existing answer is suitable.

M4: Copy and paste the answer into the chat input field and click "Send."

Method 3: Attachment Upload:

M1: Read the question.

M2: Locate a relevant file or attachment.

M3: Determine if attaching a file is necessary.

M4: Click on the attachment button, select the file, and send it as a response.

Method 4: Emoticon/Emoji Responses:

M1: Read the question.

M2: Recall an emoticon or emoji that expresses the desired sentiment.

M3: Determine if adding an emoticon or emoji is appropriate.

M4: Click on the emoticon/emoji button, choose the expression, and send it.

Method 5: Navigate Previous Answer:

M1: Review the previously typed response.

M2: Recall the part of the response that needs editing.

M3: Decide on the changes to be made.

M4: Use arrow keys to navigate and edit the response, then click "Send."

Selection Rules:

Typing Response:

- Choose this method when the question requires a detailed or custom response.

- This method is suitable for open-ended questions or when the user needs to provide a specific answer not covered by other methods.

Copy-Paste Response:

- Choose this method when a previously written response is highly relevant to the current question.

- This method is suitable for frequently asked questions or when consistency in responses is crucial.


Attachment Upload:

- Choose this method when the question or response requires sharing documents, images, or files.

- This method is suitable for scenarios where visual or multimedia content is necessary.

Emoticon/Emoji Responses:

- Choose this method when the user wants to convey emotions or sentiments along with the response.

Navigate Previous Answer:

- Choose this method when the user needs to modify a response that was already typed.
- This method is suitable when a response contains errors or needs refinement before sending.
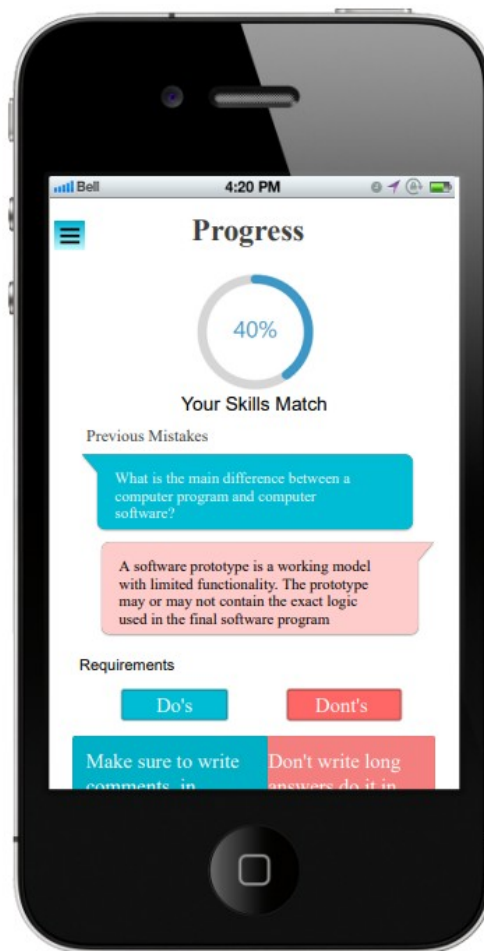
Goal: Check progress toward a company assessment.

Operators:

1. **O1**: Move the mouse pointer to a specific location.

2. **O2**: Click the left mouse button.

3. **O3**: Type on the keyboard.

4. **O4**: Read information on the screen.

5. **O5**: Make decisions based on displayed information.

Methods:

    Method 1: Visual Inspection:

        M1: Observe the GUI interface and locate the progress bar.

        M2: Identify the progress bar as the indicator of your assessment progress.

        M3: Decide whether to check your progress or not.

        M4: Move the cursor to the progress bar, click it to reveal the progress percentage, and read it.

    2. Expanding and Checking Progress:

        M1: Observe the GUI interface and locate the progress bar.

        M2: Recognize that the progress bar may contain detailed information when expanded.

        M3: Decide to check detailed progress.

        M4: Expand: Use arrow keys to navigate and expand the progress bar to reveal detailed information.

        M5: Check Details: Read the detailed progress information.

    3.Hover for Details:

        M1: Observe the GUI interface and locate the progress bar.

        M2: Understand that hovering over the progress bar may provide additional details.

        M3: Decide to check detailed progress.

        M4: Hover: Move the mouse cursor over the progress bar to reveal detailed progress information.

Selection Rules:

    - Use the Visual Inspection method for a quick overview of your progress using the progress bar.

    - Choose the Expanding and Checking Progress method when you need more detailed information, and the GUI supports expanding the progress bar.

    - Opt for the Hover for Details method if hovering over the progress bar provides convenient and detailed progress information

Conclusion: We have successfully understood the GOMS model with respect to given

GUI to have better usability