

Name: Phaveen S
Roll No: 240701383

USER INTERFACE DESIGN

Experiment 2

Visual Memory Task – Documentation

1. Overview

The **Visual Memory Task** is a simple cognitive test designed to evaluate a user's short-term visual memory. Users are briefly shown a set of icons and are required to remember as many as possible within a fixed time limit.

This task is commonly used in:

- Cognitive training applications
 - UX / HCI academic projects
 - Brain-training or memory assessment tools
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2. Objective

The main objective of the Visual Memory Task is to:

- Test the user's ability to recognize and recall visual elements
 - Measure short-term visual memory capacity
 - Provide a clean and distraction-free interface for memory testing
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3. User Interface Description

MEMORY RECALL TASK



Instructions:

1. You will be shown several groups of icons or text.
2. Carefully observe each group during the viewing time.
3. Try to memorize as many items as possible.
4. After viewing, recall the items you remember.
5. You will have 5 seconds to view the items. Then, **recall them on the next screen.**
6. Accuracy in recall is more important than speed.

START



3.1 Welcome / Instruction Screen

Title: Visual Memory Task

Content:

- Displays the rules of the task
- Informs the user that icons will be shown for **10 seconds**
- Encourages the user to remember as many icons as possible

Action Button:

- **Go** – Starts the memory task
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3.2 Icon Display Screen

Title: List of Icons

Description:

- Displays a grid of multiple icons
- Icons represent different categories such as:
 - Food (burger, salad)
 - Transport (car, truck, airplane)
 - Technology (chip, settings, game controller)
 - General symbols (star, bulb, cycle)

Action Button:

- **Start** – Begins the 10-second icon visibility timer

4. Task Flow

1. User lands on the instruction screen
2. User clicks **Go**

3. Icon list screen appears
 4. User clicks **Start**
 5. Icons are displayed for **10 seconds**
 6. After time expires, icons are hidden
 7. User is expected to recall or identify remembered icons (future enhancement)
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5. Rules of the Task

- Icons are shown only once per round
 - Viewing time is limited to **10 seconds**
 - No interaction is allowed during the timer
 - User must rely only on memory
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6. Functional Requirements

- Display instruction text clearly
- Show a fixed set of icons

- Implement a 10-second timer
 - Hide icons automatically after timer ends
 - Provide start and navigation buttons
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7. Non-Functional Requirements

- Simple and minimal UI design
 - High icon visibility and contrast
 - Responsive layout for different screen sizes
 - Fast loading and smooth transitions
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8. Design Considerations

- Neutral color palette to avoid distractions
 - Rounded buttons for better usability
 - Consistent icon size and spacing
 - Clear typography for readability
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9. Possible Enhancements

- Scoring system based on correct recall
 - Difficulty levels (more icons, less time)
 - Randomized icon sets
 - User performance analytics
 - Sound or animation feedback
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MEMORY RECALL TASK



YOUR RECALL SCORE:



CONTINUE

RESTART

EXIT

10. Conclusion

The Visual Memory Task provides a clean and effective way to test short-term visual memory. Its simple design and clear rules make it suitable for educational projects, usability studies, and cognitive training applications.