IT351 HUMAN COMPUTER INTERACTION

Assignment – 1 : Serial Position Effect

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The serial position effect is a tendency of the human mind to recollect the first and last items of a list more easily than the ones in the middle. It is one of the many cognitive biases of the human mind.

The effect is constituted of mainly two biases in Human mind which are Primacy effect and Recency Effect.

Primacy effect:

As per the primacy effect, the items at the beginning of a list are easy to remember because of how humans recall things from memory. Due to repetition, your mind becomes more familiar with the initial items.

Recency effect:

As per the recency effect, you recall the last few items of the list because they are more recent and, therefore, fresh in your mind.

Simulation:

1. To test the serial position effect, a small experiment can be carried out.

2. It's a simple memory game of remembering 8 animals from a list.

3. A timer is set to 10 seconds to remember the animals. Then the user has to select the animals that he can recall from a list of 16 animals.

4. In the end the score of the user is displayed based on the number of correct animals he selects from the list.

5. Based on the score, the analysis can be done taking into consideration the Serial Position Effect.

6. A GUI can be developed to simulate the entire experiment.

Graphical User Interface (GUI) Screenshots

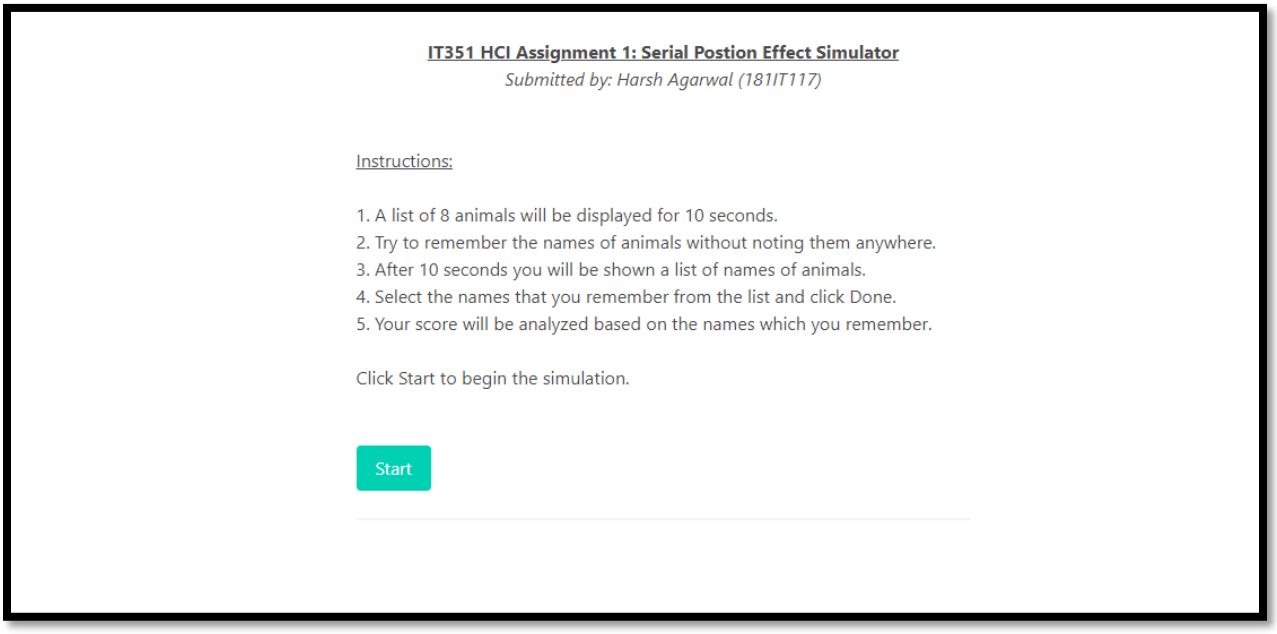


Fig 1: Home Page of the Application

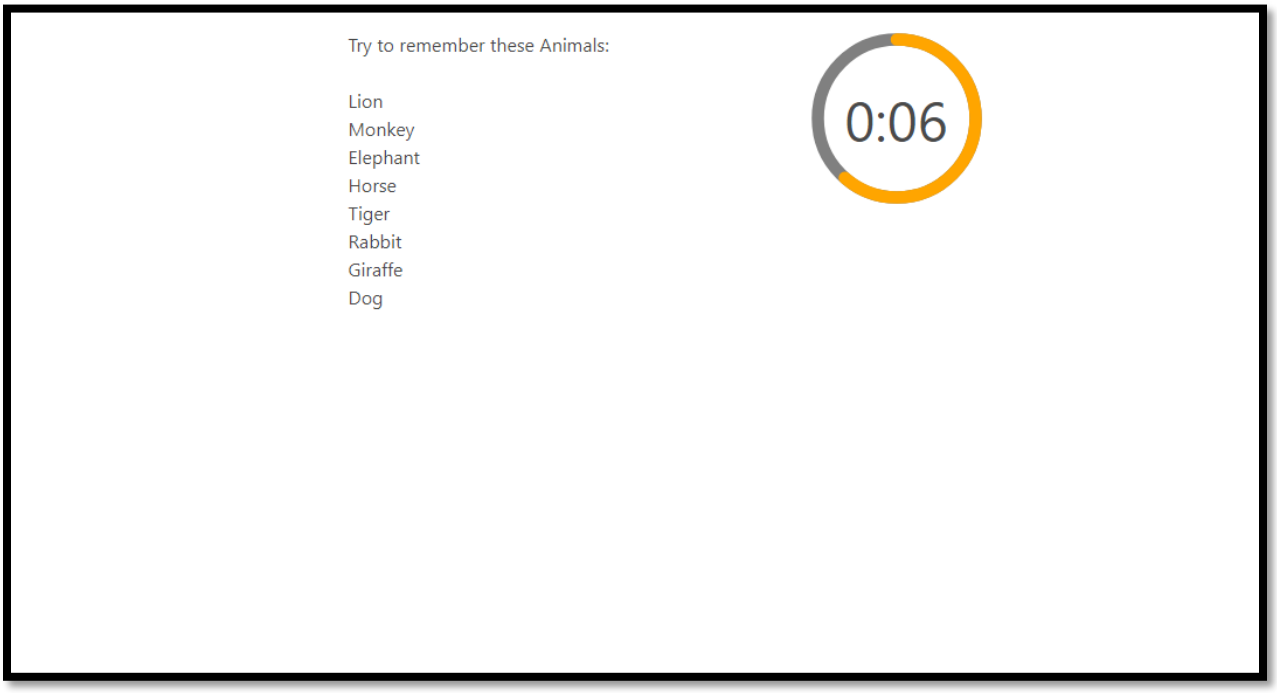


Fig 2: User is shown a list of animals for 10 seconds

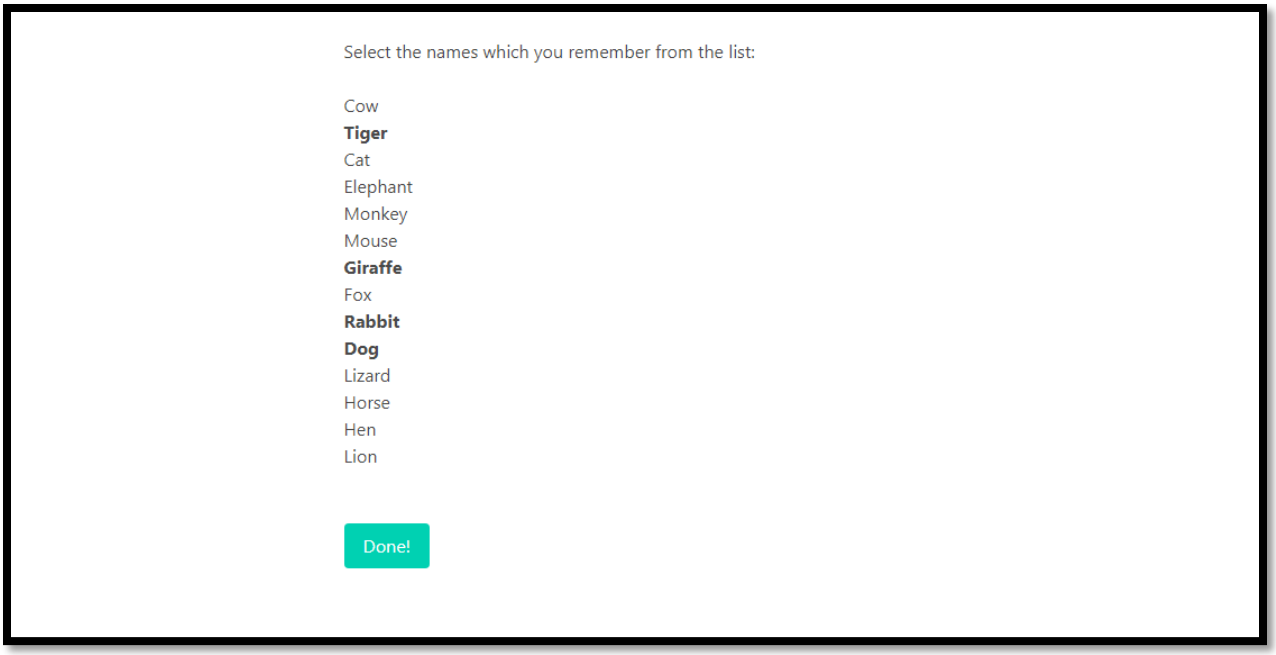


Fig 3: User is required to select the names which he remembers from the list

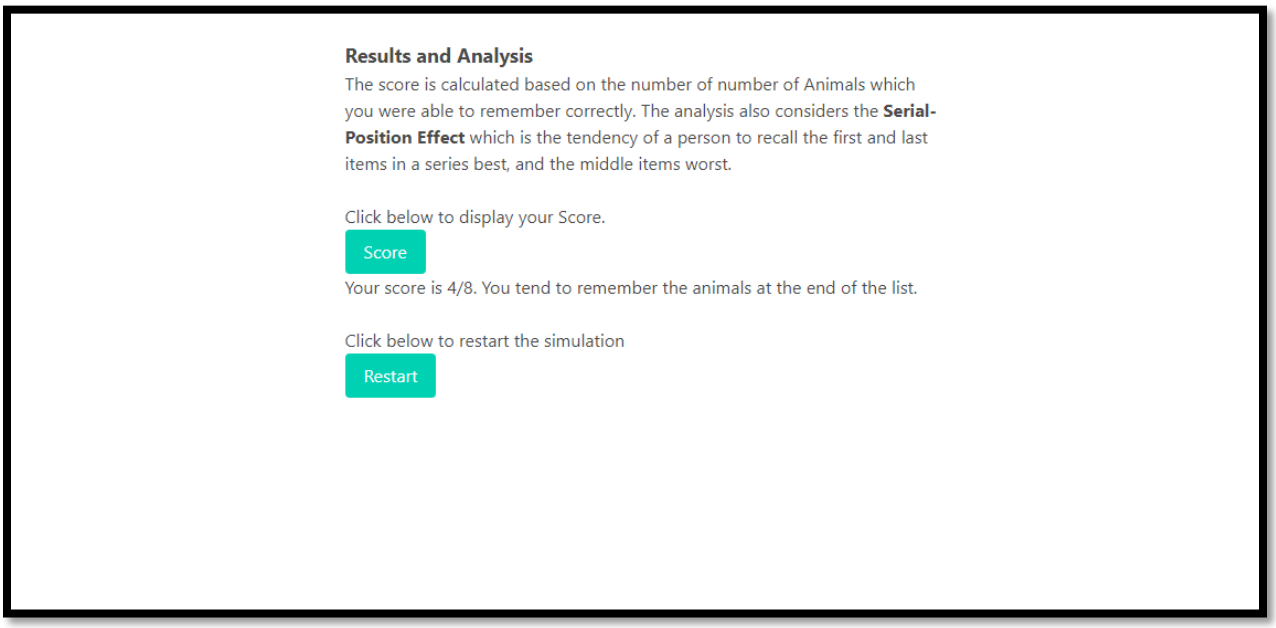
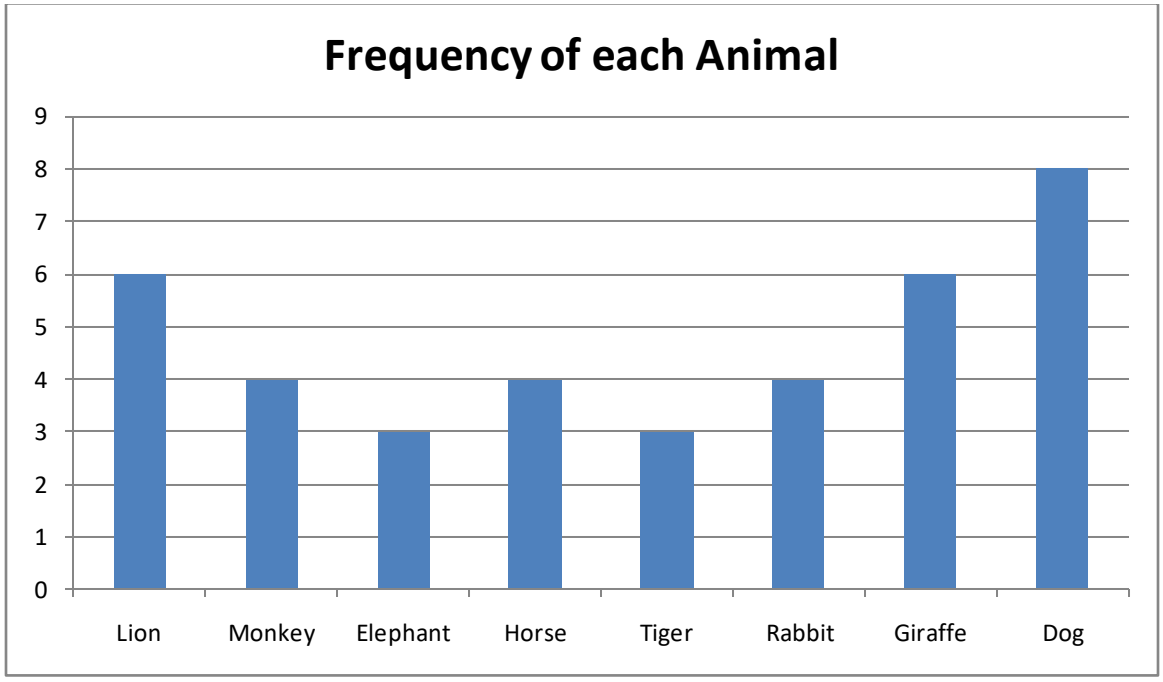


Fig 4: Based on the number of correct selections, the score of the user is calculated and his selections are analyzed taking into consideration the serial positioning effect.

Analysis

For this experiment, 10 different users were made to use this application and the selections of each user were noted.

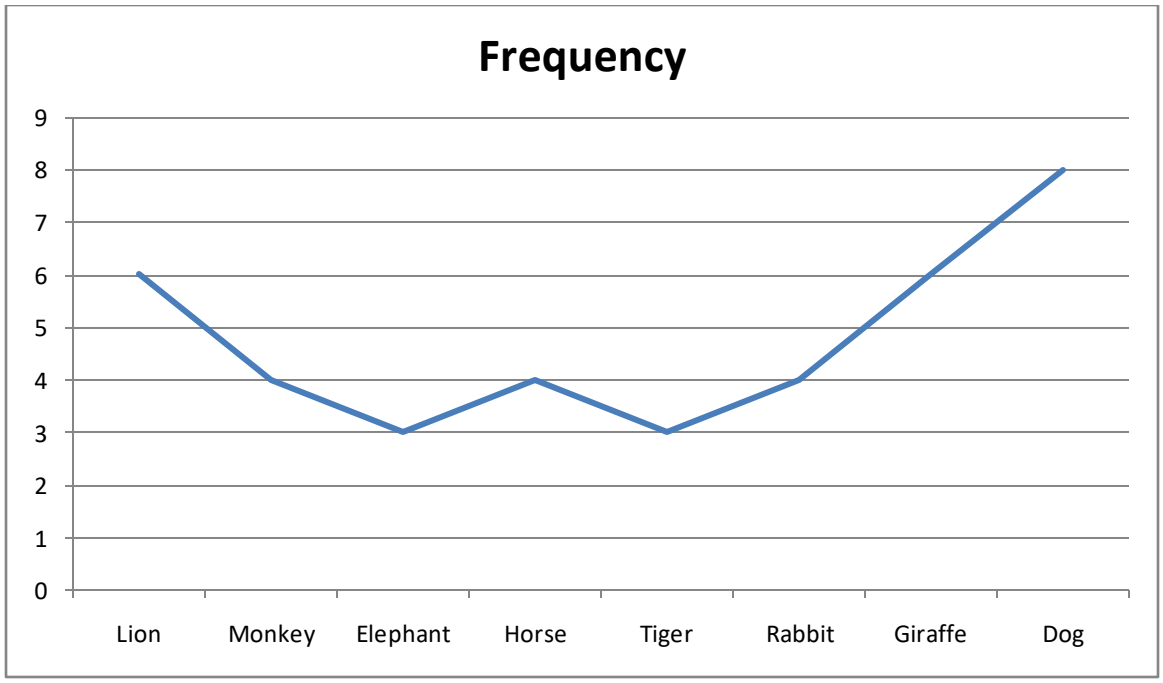
Below are the Bar Graph representations of the names of animals and the number of times they were selected by different users.



As we can infer from the Graph, the animals **Giraffe, Dog and Lion** were selected the most number of times because they are present at the end and in the beginning of the list respectively. Therefore, we can sat the recall frequency of names appearing first and last in the list is more than those present in the middle.

We can also see that **Horse** was selected 4 times despite occurring in the middle of the list. This shows that it may be the favorite animal of the users that is why they have paid more attention to it and hence selected it more number of times.

The line graph depicting this data is also shown below:



Conclusion

We infer from this experiment the following points:

1. Primacy and Recency effects are strong influencers of human behavior.
2. We remember and usually prefer things presented first, as well as most recently.
3. Things in the middle tend to be forgotten.

Therefore, we should place things that deserve emphasis first or last on our websites and applications to grab more attention of users.