Assignment 5

1   Aim

Evaluate an interface using usability evaluation technique.

2   Objective

To be able evaluate the usability of a system interface using some evaluation method.

3   Outcome

Students will be able to provide interface evaluation and suggestions to improve the system's design

4   Theory

The purpose of evaluation can be to improve the usability of the product as part of design/development (formative evaluation), or to assess the extent to which usability objectives have been achieved (summative evaluation) Some techinques are:

- Cognitive walkthrough
- Heuristic evaluation
- Review based
- Model based
- Experiment
- Interviews
- Questionnaire
- Think aloud
- Protocol analysis

- Post-task walkthrough

- Eye tracking

- Physiological measurement

4.1 Heuristic evaluation

Using Heuristic evaluation method to Evaluate User interface. Taking refrenece of 10 Huristics proposed by Jacob Nielsen

- Visibility of system status
  The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.

- Match between system and the real world
  The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms. Follow real-world conventions, making information appear in a natural and logical order.

- User control and freedom
  Users often choose system functions by mistake and will need a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue. Support undo and redo.

- Consistency and standards
  Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform conventions.

- Error prevention
  Even better than good error messages is a careful design which prevents a problem from occurring in the first place. Either eliminate error-prone conditions or check for them and present users with a confirmation option before they commit to the action.

- Recognition rather than recall
  Minimize the user's memory load by making objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.

- Flexibility and efficiency of use
  Accelerators — unseen by the novice user — may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.

- Aesthetic and minimalist design
  Dialogues should not contain information which is irrelevant or rarely

needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.

- Help users recognize, diagnose, and recover from errors
  Error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.

- Help and documentation
  Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.

5   Conclusion

Through this assignment, we have understood how to evaluate a systems user interface