



HUMAN COMPUTER INTERACTION

ASSIGNMENT 03

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CLASS:

BCS-6

SUBMITTED TO:

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Title of Evaluation:

<https://flutter.dev>

Group Member: _

- Member 1: Maryam Amjad (Fa20-BCS-009)
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TARGET USER POPULATION:

There are three types of users

1. **Beginner developers:** Those who are learning flutter sdk
2. **Intermediate developer:** Those who know some flutter but for advanced tasks they need a tutorial.
3. **Pro developers:** They have deep understanding of flutter, they read documentation for best practices.

GOALS OF USERS:

1. **Beginner developers:** They need step by step video tutorials and their goal is to learn flutter without much difficulty.
2. **Intermediate developer:** Those who know some flutter but for advance tasks they need a tutorial. Their goal is to learn some advanced topics like opening camera in apps.
3. **Pro developers:** They have a deep understanding of flutter; their goal is to read documentation for best practices. For example, if they want optimize app performance, they read documentation

Performing Heuristic Evaluations:

1. Preparation:

The design for the evaluation is a working system <https://flutter.dev> and was evaluated on the bases of 10 usability heuristics given below.

1. Feedback
2. Speak the User Language
3. Clearly Marked Exit
4. Consistency
5. Error Prevention
6. Recognition Not Recall.
7. Minimalist Design

8. Accelerators
9. Good Error Messages
10. Help and Documentation.

2. Individual Evaluations

Evaluated by: [Maryam Amjad](#)

1. Feedback:

When you direct your attention to a specific widget, a drop-down menu appears, accompanied by a highlighted display of the widget itself. Flutter provides clear indicators of progress with the help of progress bars. Even in the face of buffering or sluggish internet connections Flutter.dev keeps users engaged with a waiting cursor that keeps users informed while maintaining a seamless user experience.

2. Speak the User Language:

Flutter.dev utilizes concepts and principles that align with users' existing knowledge and mental models, ensuring a familiar and intuitive user experience. The application adopts user-centric design strategies that are grounded in users' understanding and expectations, contributing to a seamless and efficient interaction.

3. Clearly Marked Exit:

Flutter.dev application lacks a dedicated back button for easy navigation to the previous screen. However, users can utilize the menu bar to effortlessly move between different screens and access various sections of the application. Flutter.dev application does not offer a cancel or exit button to address the situation when users unintentionally click on certain elements within the interface. For instance, if a user accidentally clicks the YouTube icon on the menu bar, they may face difficulty in exiting the YouTube section and returning to the previous screen.

4. Consistency:

Flutter.dev ensures a consistent user interface, providing users with reliable design patterns and navigation principles across screens and interactions. However, the "Docs" section's UI deviates from the rest of the website, potentially impacting overall visual and navigational consistency.

5. Error Prevention:

Flutter.dev takes proactive measures to provide clear instructions and warnings, effectively preventing errors and promoting a seamless user experience. The application places a strong emphasis on user guidance and usability to ensure users can navigate and interact with it without encountering preventable errors.

6. Recognition Not Recall:

Flutter.dev provides clear and visible step-by-step instructions that guide users through various actions. This approach greatly reduces the cognitive burden and pressure on users' short-term memory. It recognizes that even expert users may find it challenging to remember every detail by heart. Flutter.dev breaks down complex tasks into manageable steps, allowing users to easily follow along and complete their actions.

7. Minimalist Design:

Flutter.dev exhibits a minimalist and visually appealing design ensuring a pleasant user experience. The UI maintains a clean and uncluttered appearance by avoiding unnecessary information and minimizing the amount of text presented to users.

However, it is worth noting that the home Page design might be overwhelming for some users because of an excessive number of images. This heavy visual presence on the Home Page can strain the eyes and potentially distract users from the primary content or functionality.

8. Accelerators:

Flutter.dev doesn't provide any accelerators for the expert users.

9. Good Error Messages:

Error messages on the website are explained in a way that is easily understandable for all kind of users either novice or experienced developers

10. Help and Documentation:

Flutter.dev provides comprehensive and detailed documentation, making it a valuable resource for users. The documentation covers a wide range of topics, offering guidance and assistance on various aspects of Flutter development.

Users can rely on the documentation to access detailed explanations, code samples and best practices, enabling them to effectively utilize the Flutter framework and its functionalities. This extensive documentation serves as a valuable reference for both beginners and experienced developers. However, one aspect that could be improved is the discoverability of the "Help" button or feature within the application, users may encounter situations where they face a problem or issue that is not addressed in the existing documentation. In such cases, it becomes crucial to have a readily accessible "Help" button or an alternative avenue for users to seek assistance.

Evaluated by: [Muhammad Muaaz Shoaib](#)

1. Feedback

When we are loading Flutter.dev, a poor internet connection progress indicator is showing at the browser's tab. Moving our cursor on a button will change its background color from white to blue.

2. Speak the user language

As our users use a lot of websites, they conventionally know that whenever we highlight a text, it changes its background color from white to blue. So, this website uses a concept that is familiar to the user.

3. Clearly marked exits

If you want to close Flutter.dev simply close the browser tab. As this is a simple website and there is no redo and undo.

4. Consistency

All the websites are designed with the same colors. The primary color is blue, and all pages of Flutter.dev have the same font. It uses almost the same level of difficulty in words. As Flutter.dev is the website so there is no need for platform conventions.

5. Error prevention

Flutter.dev gives us a popup message when we have cookies. Basically, it confirms dangerous actions.

6. Recognition rather than recall

Yes, Flutter.dev provides us with a proper header, and footer section as our users know which type of information they will get from the header and footer.

7. Accelerators

Flutter.dev is a simple website it does not provide any accelerators but the browser on which we are using provides us with accelerators. For example, on Chrome Ctrl+F5 mean reload a webpage.

8. Minimalist design

Yes, Flutter.dev has a minimalist design, it does contain any information which is irrelevant or rarely needed.

9. Good error message

As Flutter.dev is not a web app so we do not have errors. When there are no errors, there will be no good error messages.

10. Help and documentation

Flutter.dev is a website it provides documentation on how to use Flutter sdk but it will But it will not provide documentation on how to use Flutter.dev website and we do not really need any documentation for using Flutter.dev website.

3. Aggregate Evaluations

Problems:

1. There are no exit/back and undo buttons to eject from uncertain situations.
2. Flutter.dev doesn't provide any accelerators for the expert user.
3. Flutter.dev doesn't provide any error messages.
4. Doesn't provide documentation and help to use Flutter.dev.
5. Homepage of Flutter.dev is bombarded with images that is overwhelming
6. Flutter.dev doesn't provide a Help button.
7. The UI of "Docs" tab doesn't match with the overall design of the interface.

Positive findings

1. Flutter.dev provides us with feedback
2. Flutter.dev speaks the user language
3. Flutter.dev has consistency in its design
4. Flutter.dev has error prevention
5. Flutter.dev has recognition rather than recall
6. Flutter.dev has a minimalist design

4. Severity Rating

Severity Rating by **Maryam Amjad**:

Problems:

There are no exit/back and undo buttons to eject from uncertain situations.	3
Flutter.dev doesn't provide any accelerators for the expert user.	3
Flutter.dev doesn't provide any error messages	3
Doesn't provide documentation and help to use Flutter.dev.	4
Homepage of Flutter.dev is bombarded with images that is overwhelming	2.5
Flutter.dev doesn't provide a Help button.	4
The UI of the "Docs" tab doesn't match with the overall design of the interface.	1

Positive Finding:

Flutter.dev provides us with feedback	4
Flutter.dev speaks the user language	4
Flutter.dev has consistency in its design	3.5

Flutter.dev has error prevention	3
Flutter.dev has recognition rather than recall	4
Flutter.dev has a minimalist design	3

Severity rating by: [Muhammad Muaaz Shoaib](#)

Problems rating: 0 (means not a problem) to 4 (means a catastrophic problem) scale.

Problems	Rating from 0 to 4
No exit or back button	4
No accelerators	4
No error messages	3
No documentation on how to use the website	4
Images are overwhelming	1
No help button	4
The UI of docs is not consistent with the overall design of the website	2

Positive findings rating: 0 (means satisfactory) to 4 (means best) scale.

Positive Findings	Rating from 0 to 4
Feedback	4
Speaks the user language	4
Has recognition rather than recall	4
Has consistent font and colors	4
Minimalist design	4
Popup messages for error prevention	3

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Average Severity:

Problems:

There are no exit/back and undo buttons to eject from uncertain situations.	3.5
Flutter.dev doesn't provide any accelerators for the expert user.	3.5
Flutter.dev doesn't provide any error messages	3
Doesn't provide documentation and help to use Flutter.dev.	4
Homepage of Flutter.dev is bombarded with images that is overwhelming	1.75
Flutter.dev doesn't provide a Help button.	4
The UI of "Docs" tab doesn't match with the overall design of the interface.	1.5

Positive Finding :

Flutter.dev provides us with feedback	4
Flutter.dev speaks the user language.	4
Flutter.dev has consistency in its design	3.5
Flutter.dev has error prevention	3
Flutter.dev has recognition rather than recall	4

Flutter.dev has a minimalist design	3
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5. Debriefing and Report

Possible Solutions:

- Provide Exit/Back and undo button for user to safely exit from an unwanted situation.
- Include some accelerators and short cut key/commands to incorporate the need for expert users.
- Flutter.dev should also include documentation for naive user or first-time visitors to
- Home Page should be made much simpler and all the excessive images should be removed.
- Help button should be included in the menu bar to incorporate the needs of users.
- The “Doc” sections UI should be changed to match with the rest of the website to increase the consistency of the website

Report

After successfully conducting an evaluation based on the usability heuristic, we encountered both major and minor issues. The Home Page of the website was overwhelmed with images and needs improvement. However, the overall design is simple and pleasing to the eye. One notable problem was the absence of an exit button, which is essential for inexperienced users who are prone to making mistakes. The website should incorporate a comprehensive guide or documentation specifically tailored for first-time users. Moreover, it is crucial to maintain consistency throughout the entire website, ensuring that the "doc" section aligns with the rest of the design. Additionally, it is highly recommended to include shortcuts for expert users to enhance their browsing experience. While the website offers complete documentation for Flutter, it lacks a "Help" button, which is necessary for addressing new issues that may arise and are not covered in the documentation. On a positive note, the website provides instant feedback and employs language that is familiar to the user.

Methodology

1. Preparation:

We are going to heuristically evaluate Flutter.dev which is a running system, We evaluate Flutter.dev according to this checklist of usability heuristics:

1. Feedback
2. Speak the user's language
3. Clearly marked exits

4. Consistency
5. Error prevention
6. Recognition rather than recall
7. Accelerators
8. Minimalist design
9. Good error messages
10. Help and documentation

2. Individual Evaluation

We both planned to individually evaluate the website at the same time and made lists of problems and positive findings.

3. Aggregation

Now in this step, we aggregated independent findings into one large list of positive findings and problems.

4. Severity Ratings

Now in this step, we individually assign ratings to both lists of positive findings and problems. Then we find the average severity for both lists.

5. Debriefing and report

In this step, we provide a possible solution to problems and write all over the results in a report.