

**Roll no: Fa 21/Bs SE/010**

**Task: 5**

**Business name: WhatsApp**

**Example and solution of design:**

1. **Concurrency:**

**Duplicate massages:** If a user sends a message and the app is slow to respond, the user may assume the message was not sent and send it again. This could result in duplicate messages being sent.

* Tap and hold the message to delete, then select “delete from everyone” to remove the message, or use can use “Undo” feature immediately after sending.

1. **Control and Handling of events:**

**Privacy concerns:** Whatsapp collects a significant amount of user data, including phone numbers, device information, and user activity. This has raised concerns about privacy and data security.

* Enable Two Step verification, an additional layer of security that requires you enter a passcode when you register your phone number with whatsapp. This helps prevent unauthorized access to your account.

1. **Data persistence:**

**Message loss:** If a user’s phone runs out of storage space or if the app crashes, messages may be lost. This can be frustrating for user s that relies on Whatsapp for important communication.

* Check your internet connection, whatsapp requires a stable internet connection to send and receive messages.
* Check whatsapp version, make sure you are using latest version of whatsapp.

1. **Distribution of Components:**

**Incompatibility with other devices:** As new features and updates are released, older devices may not be able to support them. This can create compatibility issues, where certain devices cannot use certain features or may not be able to use Whatsapp at all.

* Check if the device you are using is compatible with whatsapp. Whatsapp is compatible with most smartphones, but there may be compatibility issues with older devices.
* Check your phone settings, make sure that phone settings are not preventing whatsapp from functioning properly.

1. **Error and Exception Handling and fault tolerance:**

**Server error:** Whatsapp relies on servers to handle message delivery and other functions. Server errors can be cause message to be delayed or lost, leading to frustration for users.

* Check your internet connection.
* Check whatsapp server status by visiting whatsapp status page, if server is down ypu need to wait until they are back up and running.
* Clearing whatsapp cache can also resolve any issue with whatsapp connecting to the server.

1. **Interaction and Presentation:**

**Missing messages or conversation:** If you are missing messages or conversation, it is possible that they have been accidently deleted or archived. Check your chat history and archive to ensure that you haven’t accidently hidden any important conversations.

* Check your whatsapp setting; make sure that whatsapp setting are configured to save your chat history. **Go to Whatsapp Settings >Chats> Chat Backup> Backup Now** to manually backup your chats

1. **Security:**

**Fake Whatsapp apps:** Fake versions of whatsapp have been discovered in the Google play store and other app stors, which can contain malware or steal users’ personal information.

* Check the app’s developer; before downloading any app, check the developer’s name and website to make sure it is official one. The official developer for Whatsapp is “Whatsapp Inc.”