

# FILE TRANSPORT PROTOCOL (FTP)

**Presented by Group 5:**

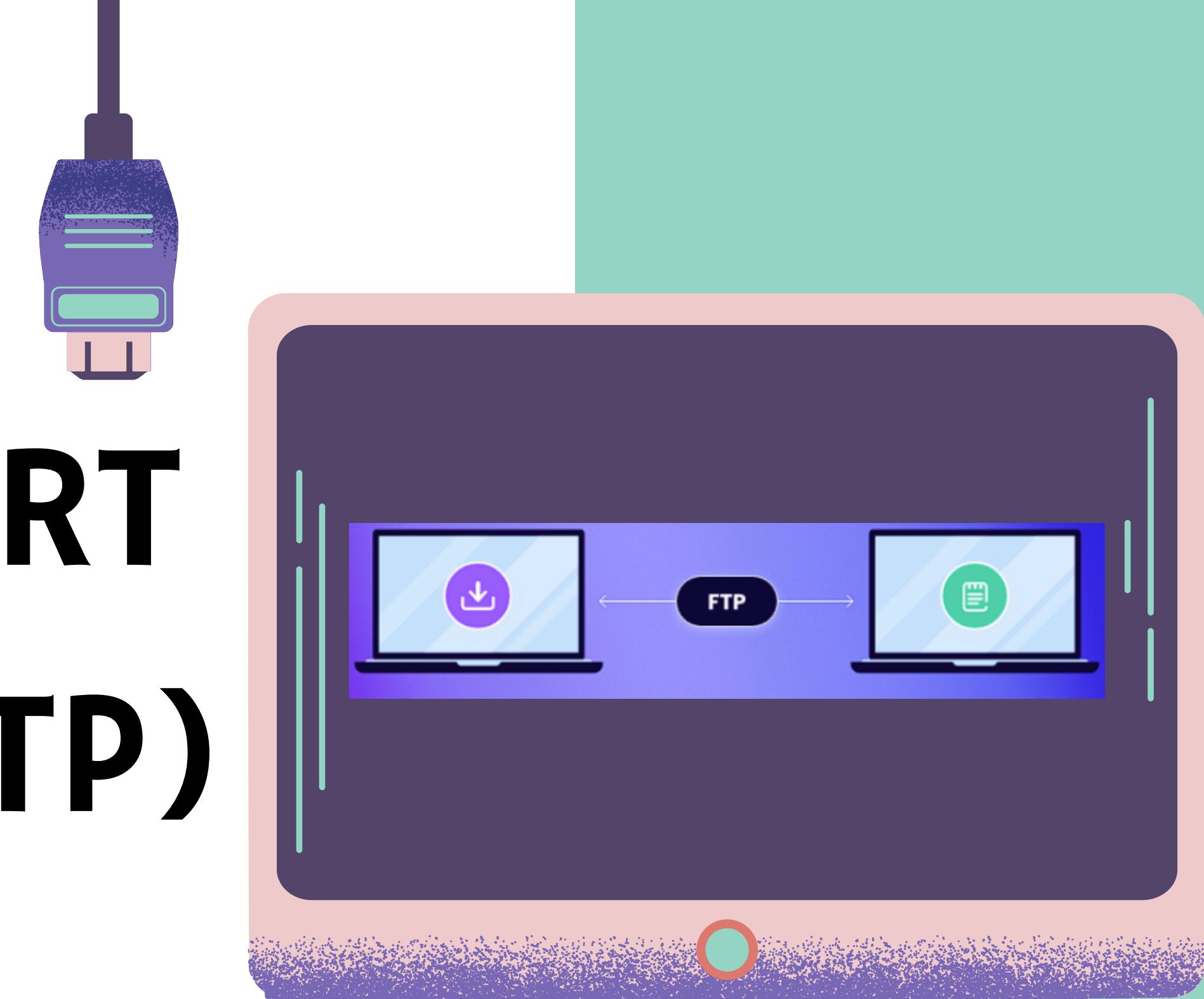
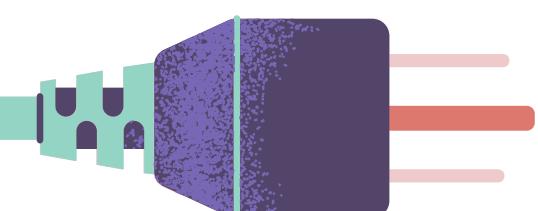
Mendoza, Nathaniel

Milan, Kherwin

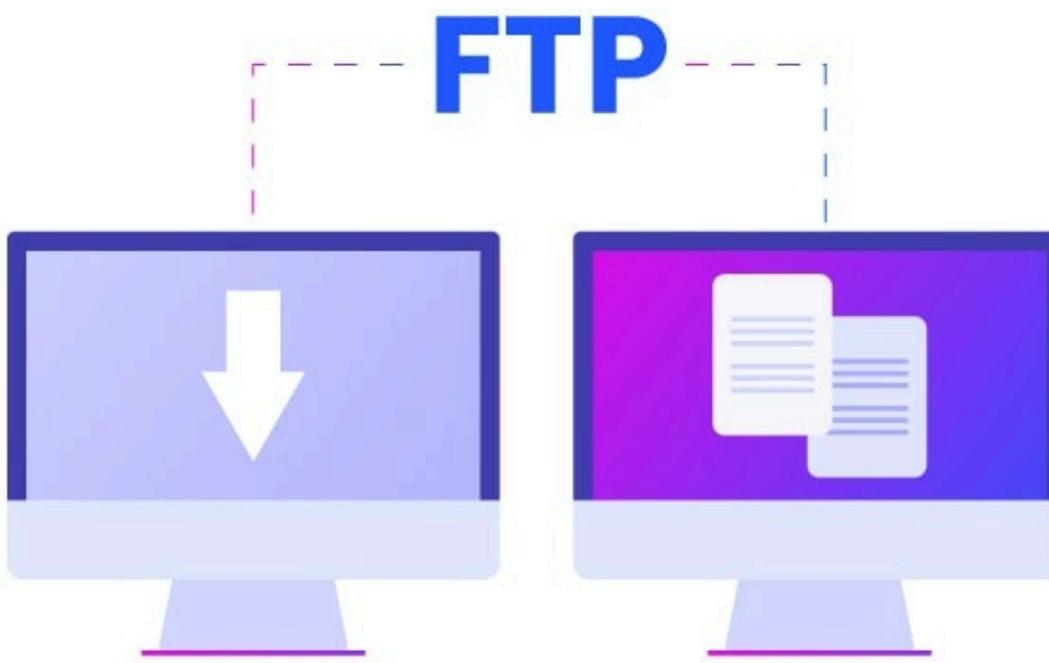
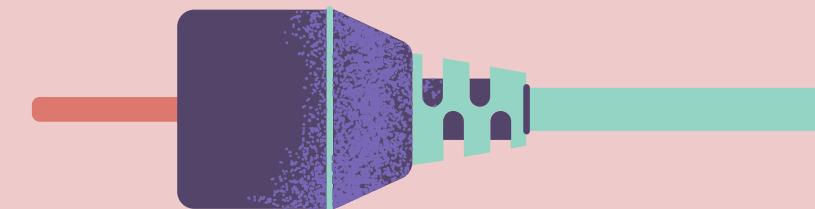
Nieles, Cenndy

Pabalan, Hanz

Ponce, Will Stuart



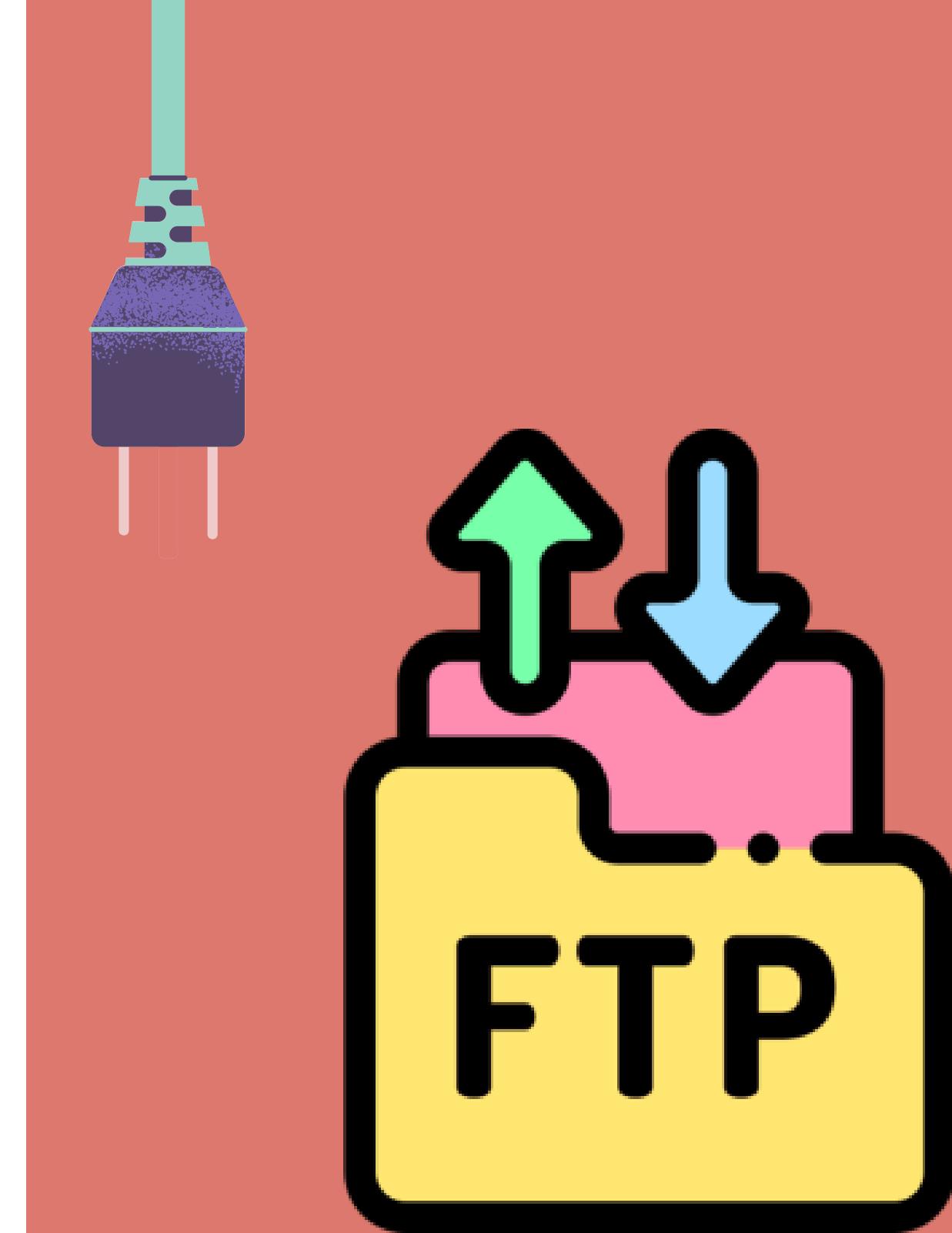
# What is FTP?



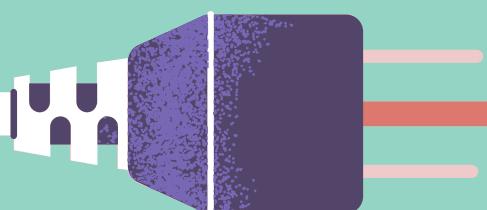
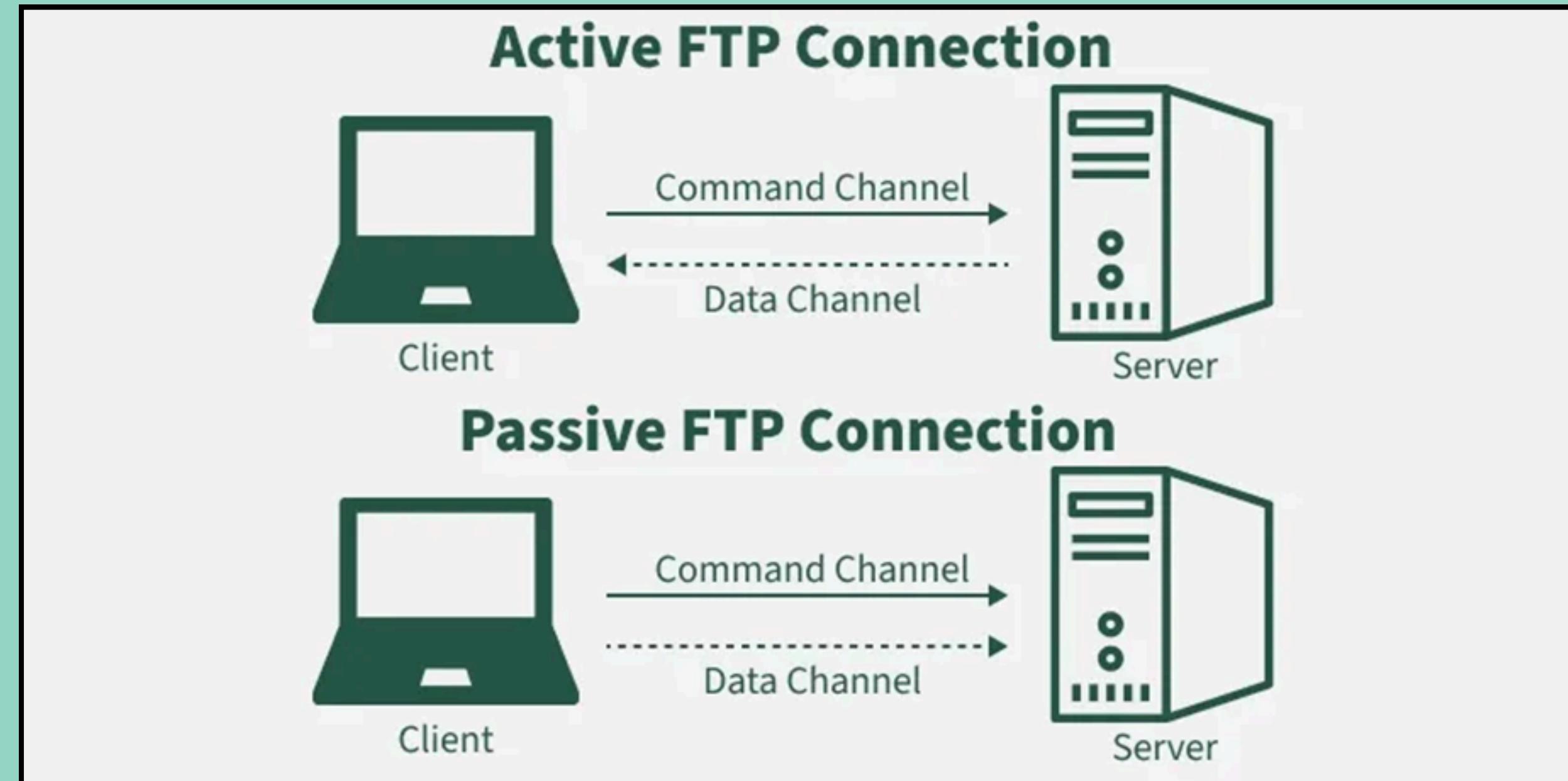
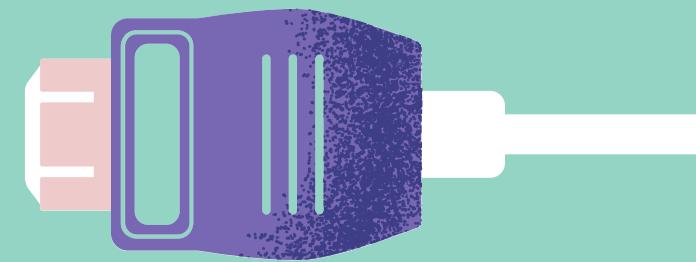
- A Network protocol for transmitting files between computers over TCP/IP Connection.
- Considered as application layer protocol.
- Useful for anyone who transfer/downloads files over the internet or cloud as well as for developers who manage websites.

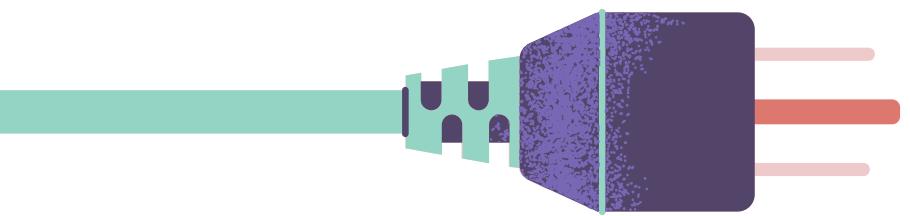
# How FTP Works?

- 1. Client-Server Connection:** An FTP client (*your computer*) connects to an FTP server (*a remote computer*).
- 2. Two Connections:** Two TCP connections are established.
- 3. Control Connection:** Handles commands and replies (e.g., login credentials, file requests).
- 4. Data Connection:** Used to transfer the actual file data.



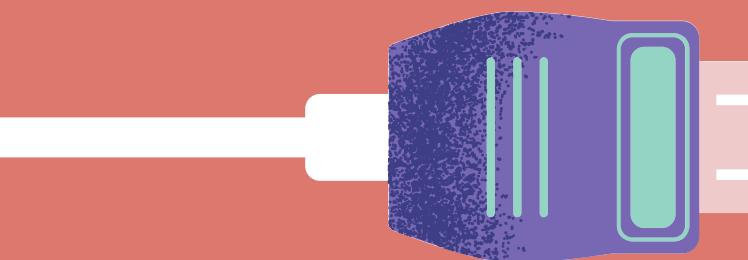
# Active vs Passive FTP Connection





# Active FTP Connection

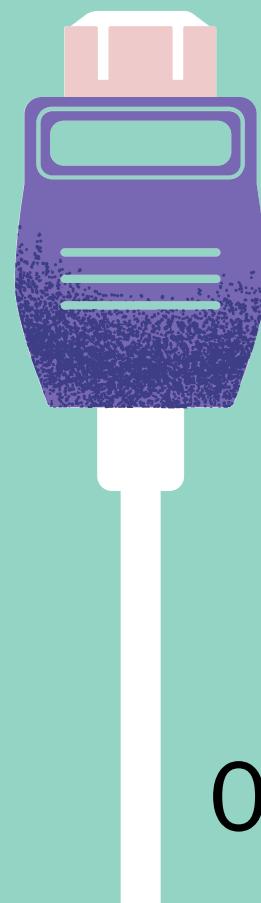
In an Active FTP connection, the client establishes the command channel and the server establishes the data channel. When the client requests the data over the connection the server initiates the transfer of the data to the client. It is not the default connection because it may cause problems if there is a firewall in between the client and the server.

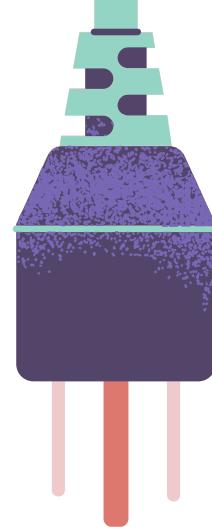
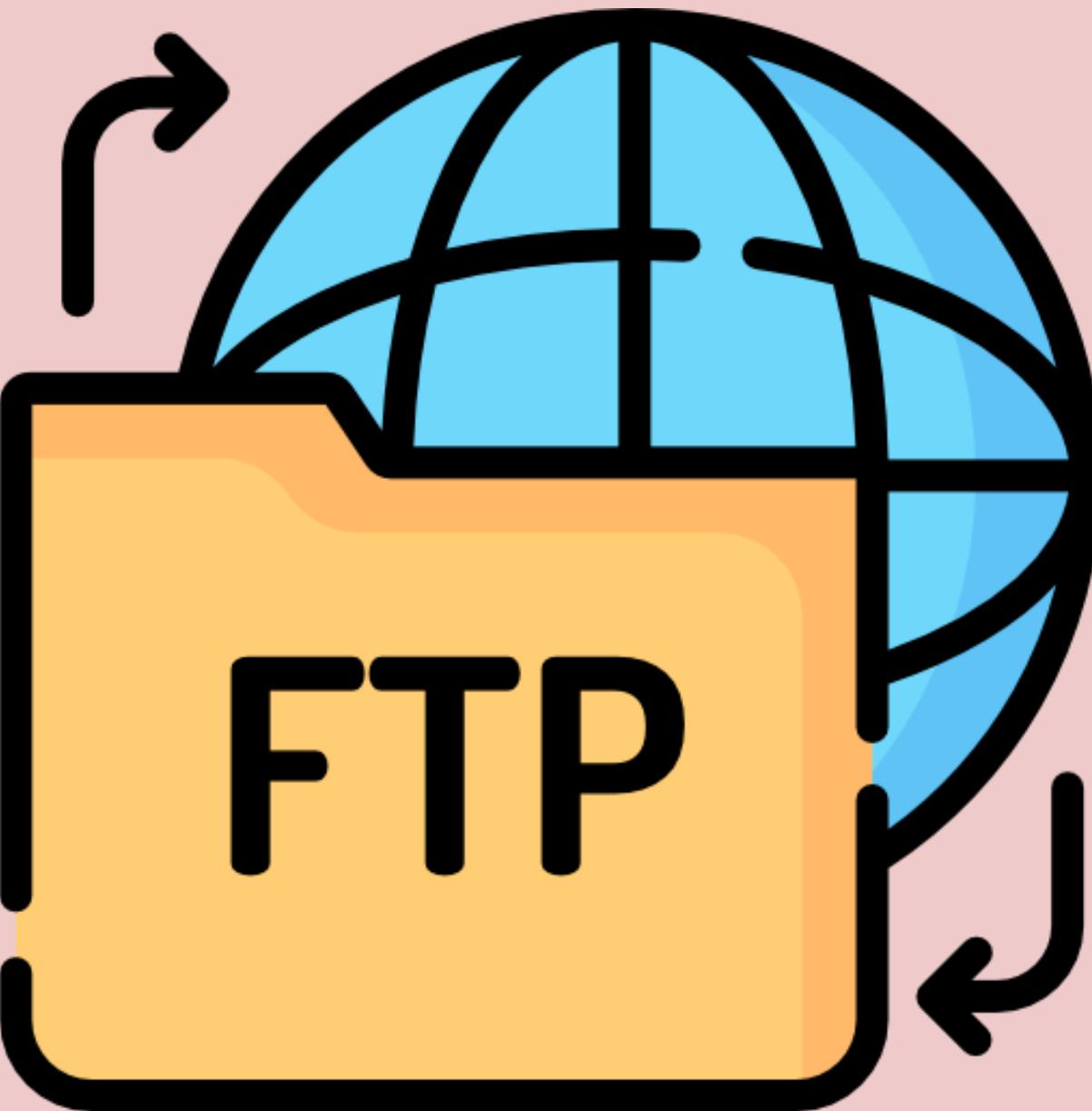




# Passive FTP Connection

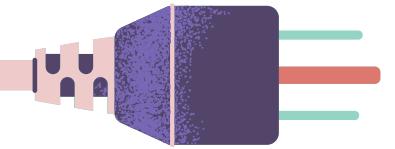
In a Passive FTP connection, the client establishes both the data channel as well as the command channel. When the client requests the data over the connection, the server sends a random port number to the client, as soon as the client receives this port number it establishes the data channel. It is the default connection, as it works better even if the client is protected by the firewall.





# Why FTP?

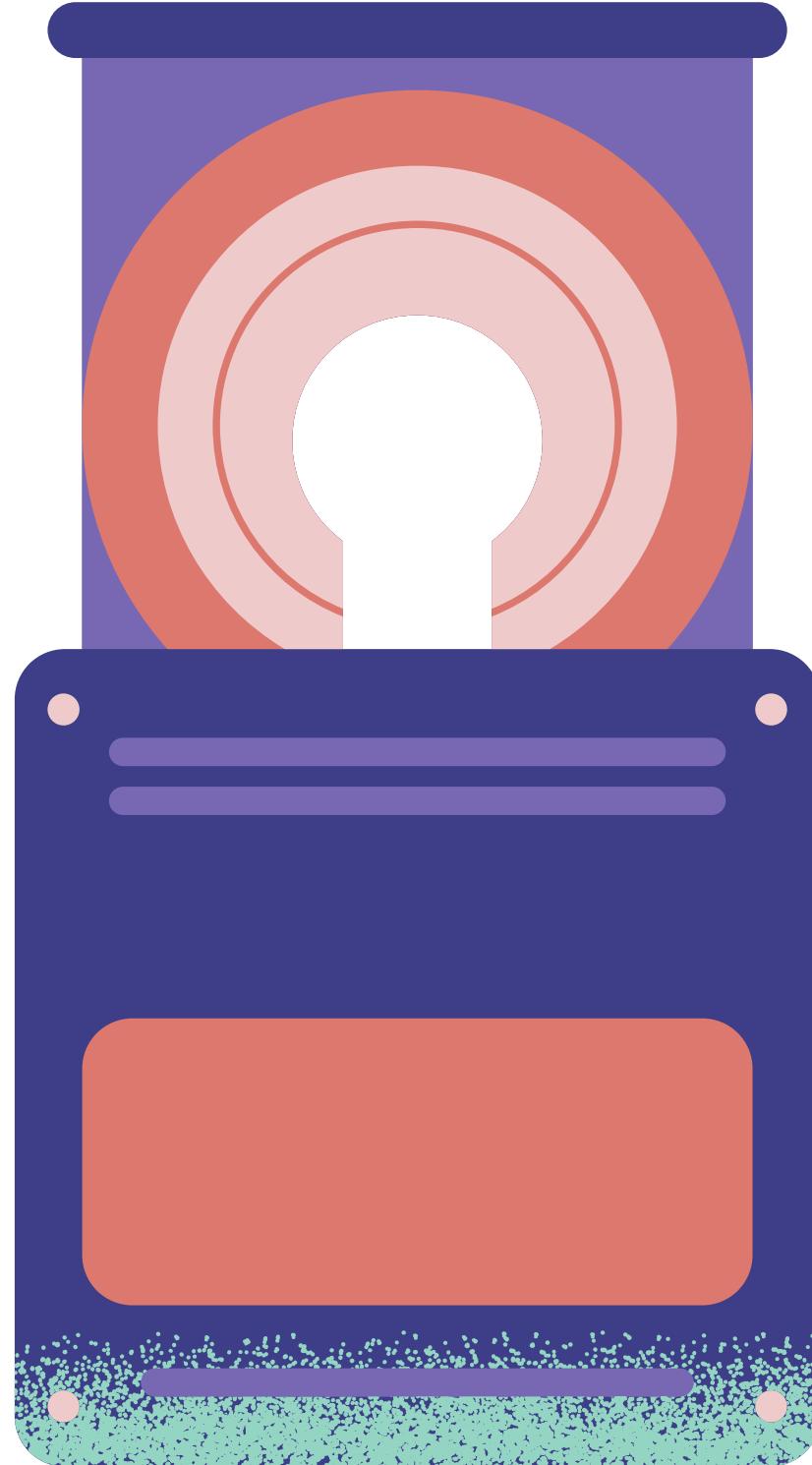
1. A standard protocol designed for reliable and efficient file transfer between different systems.
2. Focuses specifically on file transfer and handles differences in operating systems, directory structures, and character sets unlike HTTP.
3. Supports transferring in ASCII, EBCDIC, and binary (image) formats, making it versatile and platform-independent.



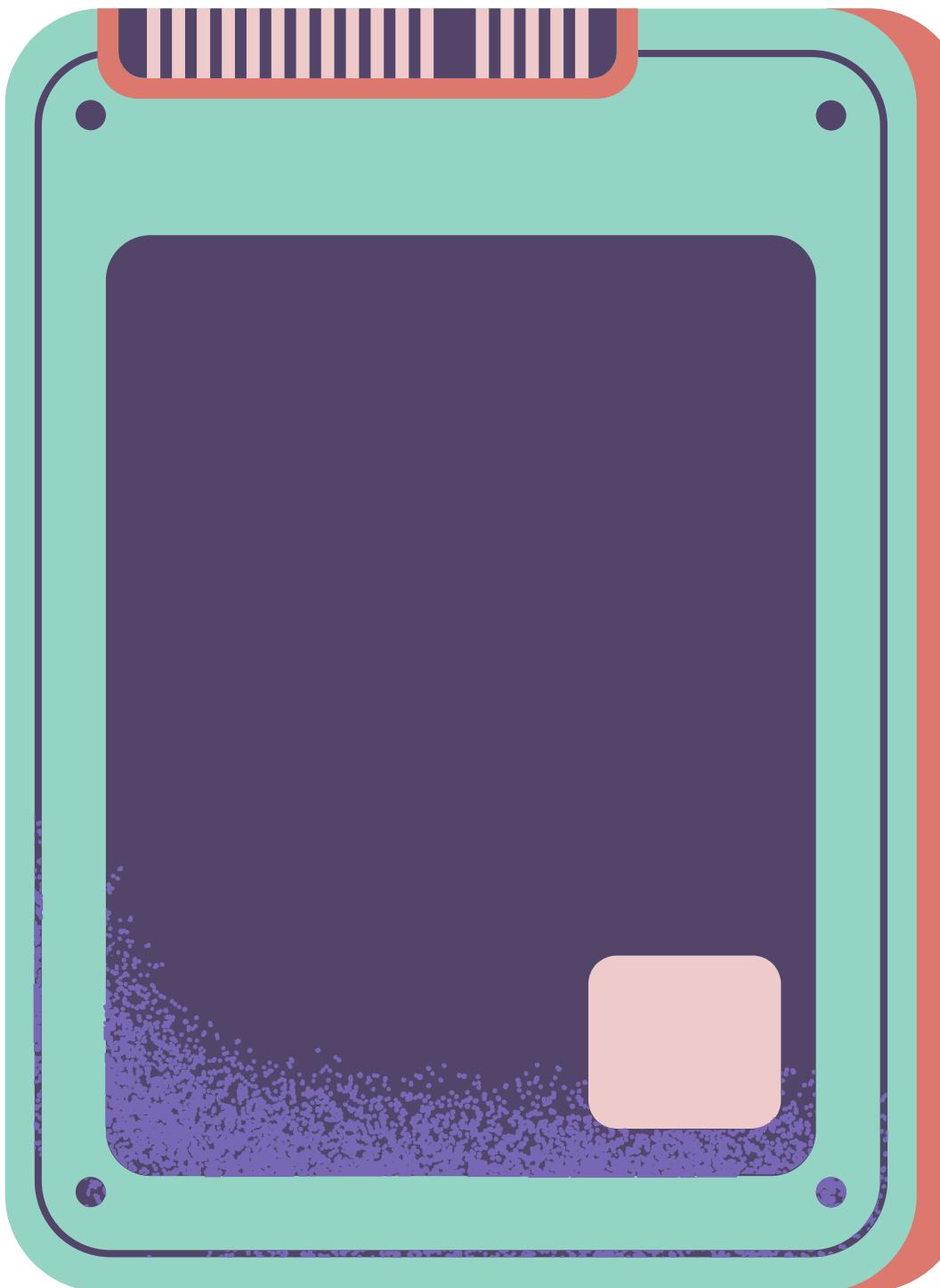
# Uses of FTP

## Common uses of File Transfer Protocol:

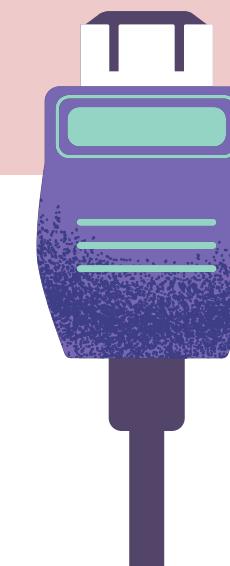
- Web Hosting: Uploading website files to web server.
- Software Distribution: Companies use FTP to send software updates and patches to users.
- Data Backup: Transferring and restoring data between local and remote servers.
- File Sharing: Sharing large files or batches of files within an organization or with customers.



# File types and transfer modes in FTP.

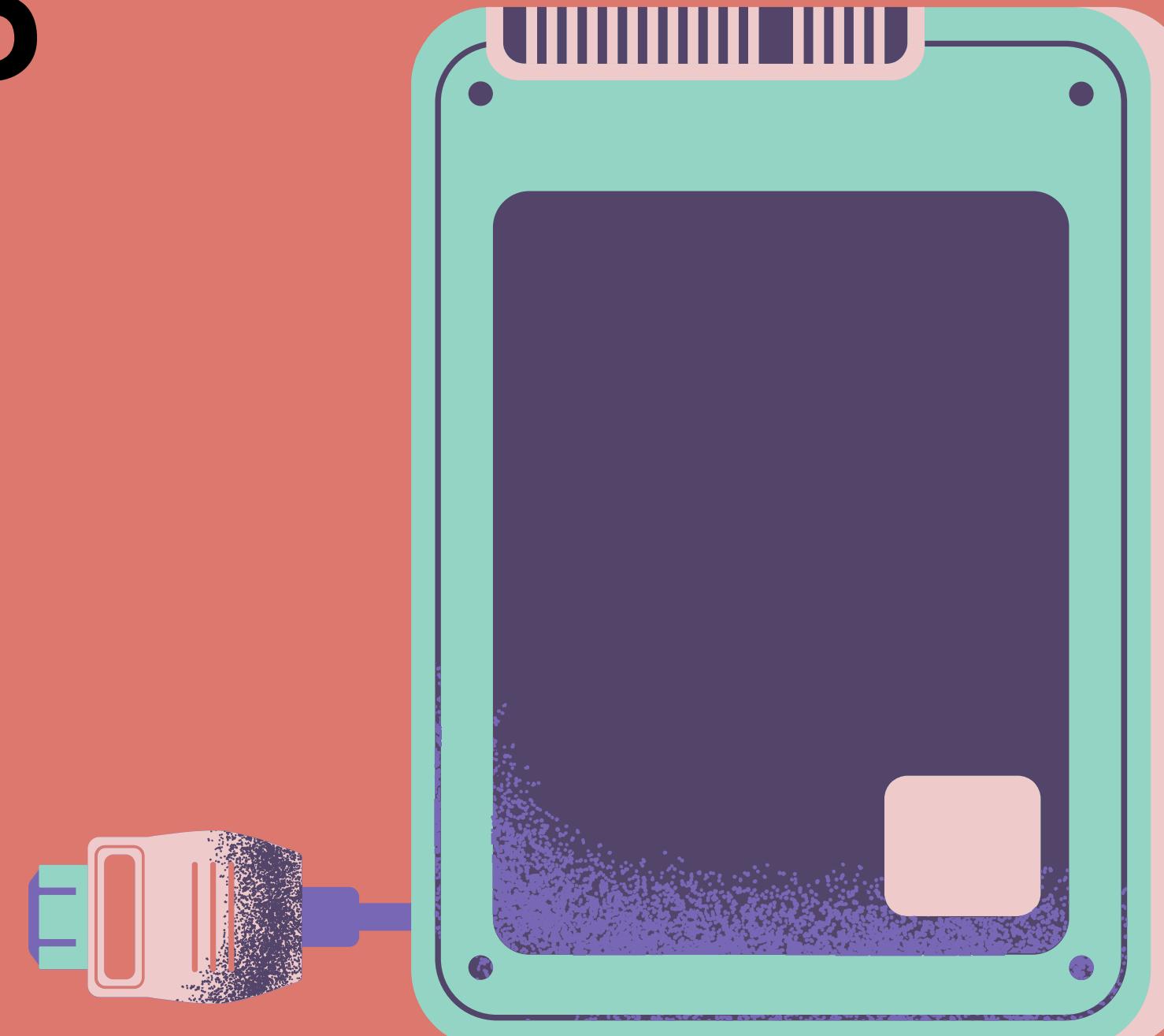


- ASCII: Used for plain-text files (e.g., .txt or .html). The protocol adjusts line breaks and other control characters to keep them compatible across systems.
- Binary: Recommended for everything else: images, executables, compressed files, music, video, etc. It transfers files byte-by-byte to ensure they arrive identical at the destination.



# Steps on how to connect in to an FTP server.

1. Obtain the connection details: Usually the server address, port (default 21), username, and password.
2. Choose the FTP client you want to use: A GUI app (such as FileZilla), the command line, a web browser, or a web client.
3. Configure the connection: Enter the details and, if necessary, select the transfer mode (active or passive) and file type (ASCII or binary).
4. Manage the files: From the client you can upload, download, delete, rename, move files, and create directories according to your permissions.



# Thank You

