Upload & Download Manager

- Team VSKR

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User Guide: Upload & Download Manager Chrome Extension

Introduction:

"Upload & Download Manager" is a Chrome extension designed to efficiently manage file uploads and downloads, especially useful for handling large files or multiple files in batches. This guide provides an overview of its functionality and usage.

Features and Benefits

Upload Functionalities:

1. Multiple File Uploads: Supports uploading multiple files sequentially, enhancing convenience.

2. Cancel Upload Process: Ability to cancel the upload process at any point.

3. Pause/Resume Upload Process: Offers flexibility to pause and resume uploads as needed.

4. Delete Uploaded Files: Enables deletion of uploaded files from the server.

5. Delete All Files: Option to remove all files from the server.

6. Upload Progress Visualization: Displays the upload progress for each file in percentage.

7. Concurrent Uploads Management:

Efficient Upload Handling: With `MAX_CONCURRENT_UPLOADS` set to 5, the extension can upload up to 5 chunks of files simultaneously. This increases the speed and efficiency of the upload process.
Network Efficiency: Prevents overloading your network by limiting the number of simultaneous uploads, ensuring stable internet performance.
Server Load Balancing: Reduces the risk of server overload by managing the number of concurrent requests, thus maintaining stable server communication.

Download Functionalities:

1. Individual File Download: Allows downloading of files individually by clicking the corresponding download button.

2. Download Progress Visualization: Shows the download progress for each file in percentage.

3. Restart Download Process: Provides the option to restart any ongoing download.

4. Pause/Resume Download Process: Enables pausing and resuming downloads, adding flexibility.

5. Sequential File Downloads: Supports adding multiple files to a download queue, downloading them sequentially.

6. Cancel All Downloads: Cancels all ongoing and queued downloads.

7. Cancel Current Download: Allows cancellation of the currently downloading file.

8. Queue Management: Shows the number of files remaining in the download queue.

<u>User Interaction Steps</u>

1. Installation: Install the extension from the Chrome extension site by uploading the folder containing files like `popup.js`, `popup.html`, etc.

2. Server Connectivity: Ensure the server specified in the extension is active and can handle file uploads and downloads without CORS issues.

3. Using the Extension:
- Click on the extension icon in Chrome.
- Switch between the 'Upload' and 'Download' tabs to access respective functionalities.
- Follow on-screen options to upload, pause, resume, or delete files.
- In the download tab, view available files for download, and manage download processes.

4. Monitoring Progress:
- View the real-time progress of uploads and downloads.
- Manage the upload and download queue effectively.

Conclusion

The "Upload & Download Manager" Chrome extension is an efficient tool for handling file uploads and downloads, especially designed to cater to large files or multiple file operations. With features like concurrent upload management, pause/resume capabilities, and queue management, it offers a user-friendly and efficient way to manage file transfers.

Upload Process Algorithm:

1. **Start:** User selects files to upload.

2. **Add Files to Queue:** Files are added to the upload queue.

3. **Check Queue:** Is the queue empty?
   - **Yes:** Enable file input; End.
   - **No:** Continue to next step.

4. **Upload File:** Begin uploading the first file in the queue.
5. **User Action:**
   - If **"Pause"** is clicked: Pause upload.
   - If **"Resume"** is clicked: Resume upload.
   - If **"Cancel"** is clicked: Cancel upload and remove the file from the queue.
   - If **"Delete"** is clicked: Deletes that particular corresponding file from the server.
   - If **"Delete All"** is clicked: Clear the queue and delete all files from the server.
6. **File Uploaded:** Move to the next file in the queue.
7. **Repeat:** Return to step 3.

Download Process Algorithm:

1. **Start:** User initiates a download.
2. **Add File to Queue:** The file is added to the download queue.
3. **Check Queue:** Is there a file in the queue?
   - **Yes:** Begin downloading the first file in the queue.
   - **No:** End.
4. **Download File:** Download the current file.
5. **User Action:**
   - If **"Pause"** is clicked: Pause download.
   - If **"Resume"** is clicked: Resume download.
   - If **"Cancel Current"** is clicked: Cancel the current download.
   - If **"Restart"** is clicked: Restart the current download.
   - If **"Cancel All"** is clicked: Cancel all downloads in the queue.
6. **File Downloaded:** Remove the file from the queue.
7. **Repeat:** Return to step 3.