# ChatGPT Prompt Summary

## AWS S3

- Create an S3 bucket using Python.

- Handle S3 bucket deletion and re-upload behavior.

- Prevent duplicate uploads to S3.

- Understand `upload\_file()` overwrite behavior.

- Enable S3 versioning for historical file storage.

## Python Best Practices

- Explain `boto3.client('dynamodb')` usage.

- Understand `\*\*schema` in function calls.

- Improve function documentation with docstrings.

- Optimize `load\_data\_from\_json()` for reusability.

## Error Handling & Optimization

- Fix DynamoDB schema mismatch errors.

- Avoid redundant downloads using `os.path.exists()`.

- Prevent unnecessary re-uploads in S3.

- Optimize local file & S3 existence checks before operations.

## DynamoDB Schema Design

- Choose the best composite key (`title + album`).

- Handle multiple versions of the same song.

- Optimize bulk inserts from `2025a1.json`.

## Performance & Debugging

- Delete all rows from DynamoDB efficiently.

- Fix `dict` object has no attribute `scan` error.

- Optimize for-loop shorthand for better performance.

- Debug unexpected password resets in a loop.

# ChatGPT Conversation Prompts Summary

## 1️⃣ AWS S3 Related Prompts

- What happens if the bucket is not created in us-east-1? What constraints will it have?

- What name is better for the bucket I intend to create? It is used to store artist images now, but I am not sure if I will store any other things later. Also, can different properties be stored in a single S3 bucket?

- If I instantiate my class using `s3 = S3Manager()`, is it okay?

## 2️⃣ Python Code Understanding & Best Practices

- What does this do? `if not os.path.exists(local\_folder): os.makedirs(local\_folder)`

- Why do I need to install `requests`? Isn't it a built-in package?

- How should I properly document that `requests` is not built-in?

- What does this part of the code do? `file\_name = f"{artist}.jpg"`

- What does this block of code do? `with open(local\_path, "wb") as img\_file: for chunk in response.iter\_content(1024): img\_file.write(chunk)`

- What does `stream=True` do?

- Why do we need to open files in binary mode (`wb`)?

## 3️⃣ Error Handling & Optimization

- How can I improve error handling and logging for this image download process?

- How can I improve my S3 bucket structure if I store multiple types of data in a single bucket?