Advanced JavaScript
Part 2

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Agenda

1. Callbacks
2. Promises
3. Async/Await

1. Callbacks

Task: Preparations

1. Create a new MySQL database: ‘ioops‘.
2. Create a new table „users“ in your local Postgres database with the fields “username“, “password“ and “folderexists“
3. Insert one row with username “tom“ password “foobar“ and folderexists “0“

1. Callbacks

Task: Implement a small NodeJS application – no server – and implement the following IO operations using the **asynchronous** methods: mysql.query, fs.exists, fs.mkdir, fs.writeFile.

1. Check if the user “tom“ exists in the database-table „users“.
2. If yes, check if the folder „/tom“ exists in the folder of the NodeJS application.
3. If the folder does not exist, create it.
4. When the folder is created or exists, create in it a new file „tom.json“ and save a randomstring of length 20 in it. If the file exists, overwrite it.
5. When the file is ready, update tom‘s record in the database and set “folderexists“ to “1“.
6. Exit the process.

2. Promises

- Promises help to organize callbacks
- A promise is
  - an object, that represents an action that has not finished yet
  - a placeholder for the result of an asynchronous operation

2. Promises

Task:

Rewrite the previous solution to use promises.