MouthPiece

COS301 Team Gamma: SharingAPI Team Goals

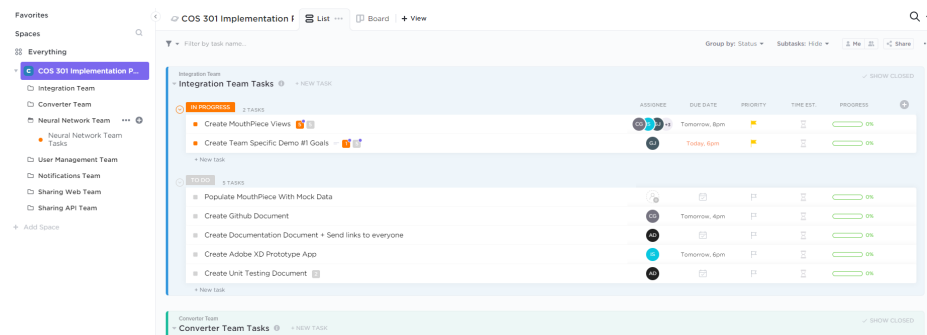March 2020

1 Introduction

This document describes the responsibilities and all deliverables for the SharingAPI Team.

Demo #1 Due Date: Thursday 12 March 20:00

2 Organisation

2.1 ClickUP

You need to elect a team leader if you have not done so already. Work together with this member to create tasks and sub-tasks for each member in your team on `http://clickup.com` (on the COS301 workspace you have been invited to).

Ensure that you indicate progress and mark tasks as complete. This page will be displayed at the demo.

2.2 Slack

Although we have created a WhatsApp group - we do still find it easier for in-group discussions to happen on the slack channels. Simply login to `http://cos-301.slack.com`

3   Overall Team Tasks

These are the tasks to be done by your team for the final product (not specifically Friday's demo).

- Design and implement a database to store all information pertaining to Mouth Packs (MySQL)

- Implement a REST API that will

  - Add mouth packages to the database
  - Retrieve mouth packages from the database
  - Compress mouth images and convert to a coherent format and re
  - Store the images on the Apache file server (e.g. `http://teamgamma.ga/mouthpacks/`)
  - All requests and responses to be done in JSON, as POST requests

- The API will be stored and ran at: `http://teamgamma.ga/api/sharingapi.php`

The tasks are always subject to change, but we have tried our utmost best to sketch out the entire project ahead.

4 Team Tasks for Friday

4.1 Documentation

All documentation to be created in Overleaf

4.1.1 Database Design

You are required to document the Database tables and attributes with relationships. Write descriptions for each table and attribute. Create a complete ERD diagram and add it to the document. This should be as close to the final product as possible.
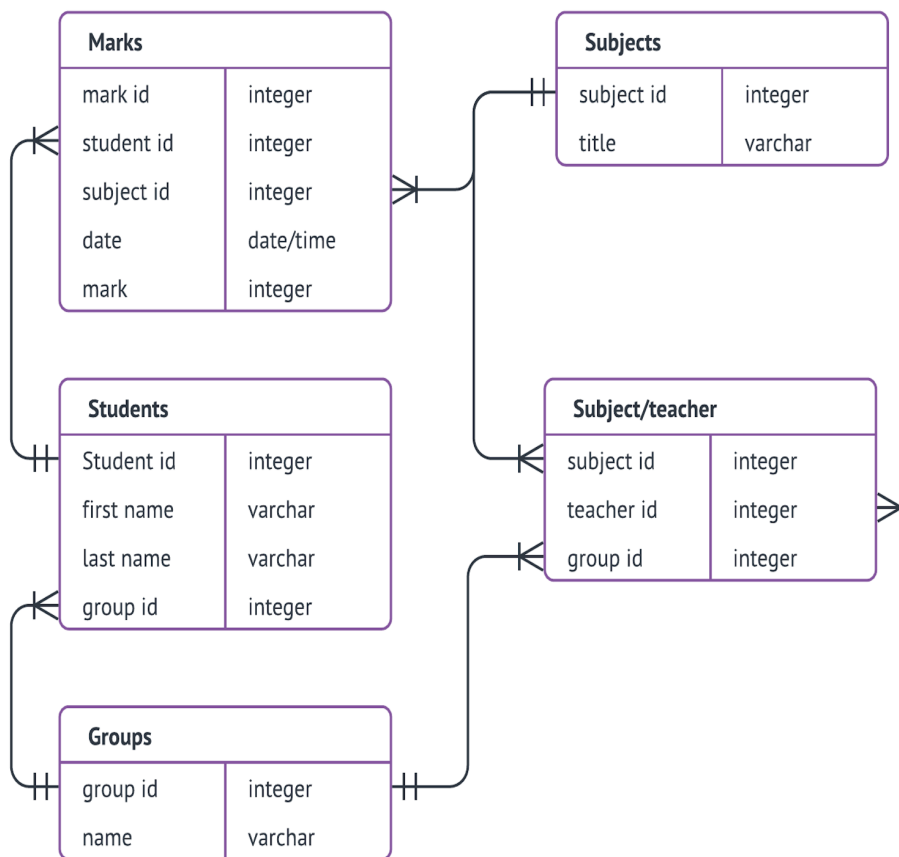

Figure 1: Example ERD diagram

4.1.2 API Interface

You are required to document the entire API interface. This includes listing all the HTTP requests the API will serve (e.g. getMouthPack). **Some requests will inevitably change in the future, so rather get down to implementing it for Friday than overthinking it**

More specifically:

- Create every HTTP request as a heading in the document

- Provide a description as to the functionality of the request

- Provide a sample JSON request (to be sent to server) alongside a sample JSON response (to be sent back to client)

Example JSON Request:

```
{
    "requestType" : "getMouthPack",
    "mouthPackID" : "vampire31",
    "responseOptions" :
    {
    "something" : 5
    "whatever" : true
    }
}
```

Please think about the JSON critically - don't merely follow the above example

4.2   Hosting Environment

Your team will already deploy your demo for Friday on the Apache web server. You will demo your FTP setup and showcase the live URL.

Use the following FTP details for the /api/ directory:

  – Host: ftp.teamgamma.ga
  – Username: apiteams@teamgamma.ga
  – Password: zVrikkNBJa3
  – Port: 21

Your FTP login details are rooted in: `http://teamgamma.ga/api/`. i.e. any uploads will be visible on that URL. Create your API as **sharingapi.php** (it's already in the directory). This is the same url that will be used for deployment.

Ensure that you don't overwrite any of the other API team's files.

Use the following FTP details for the /mouthpacks/ directory:

  – Host: ftp.teamgamma.ga
  – Username: mouthpacks@teamgamma.ga
  – Password: zVrikkNBJa3
  – Port: 21

This is where the mouth pack images are stored.

Your FTP login details are rooted in: `http://teamgamma.ga/mouthpacks/`. i.e. any uploads will be visible on that URL. This is the same url that will be used for deployment.
Technically your PHP API will write to this directory, and not you via FTP - access to this directory is given should you require to manually browse it while developing

If you have any issues with the hosting (permission issues etc), or require additional server resources, contact Giovanni (on Slack).

Use the following Database details:

- Host: teamgamma.ga
- Database name: teamgamma_sharingapi
- Username: teamgamma_ga
- Password: KnEdBAr0vH2

If you have any issues with the hosting (permission issues etc), or require additional server resources, contact Giovanni (on Slack).

4.3 Implementation

4.3.1 Database

You are required to implement your ERD diagram as a live MySQL Database (details above).

Create:

- All the tables

- All the attributes and relationships

- Fill in some mock data (at least two entries in each table where applicable)

Demo the database via the terminal on one of your member's laptops. (i.e. log in to database, list tables, list data etc)

4.3.2 PHP Api

You are required to implement at least three working HTTP requests on the apache server (http://teamgamma/api/sharingapi.php) (details above).
In other words:

- Establish the connection from PHP to the Database (don't worry about Singletons etc. for now, we can implement those later)

- Write 3 working HTTP requests

- Ensure you are accepting requests as JSON, POST requests only.

- Query the database and send back the result as a JSON formatted response

Demo the API via `https://www.postman.com/`

4.3.3 Unit Testing

Describe how your team will implement unit testing. Better yet - implement it in the Demo where possible.