

Project Manager

By Rocket Sammies

Roles

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About

Project Manager is a gradebook with an emphasis on easy assignment, oversight, and grading of group projects.

Features

- Create custom rubrics
- Fill out rubrics and return them with/without comments
- Oversee projects with intermediate submissions/checkpoints
- See grading deadlines and receive notifications upon assignment submission
- Send emails to groups
- View old projects
- Grade projects

Schema

Users collection

```
[{
  "email": "user@example.com",
  "name": "John Doe",
  "password":
    "5e884898da28047151d0e56f8dc6292773603d0d6aabbdd62a11ef721d1542d8",
  "type": "student",
  "classes": {
    123456: [
```

```
      "hw1-123456": 100
    ]
  }
},
{
  "email": "user2@example.com",
  "name": "John Doe 2",
  "password":
"5e884898da28047151d0e56f8dc6292773603d0d6aabbdd62a11ef721d1542d8",
  "type": "teacher",
  "classes": ["123456"]
}]
```

Classes collection

```
[{
  "id": 123456,
  "name": "Class Period 8",
  "teacher": "Jane Doe",
  "students": ["user@example.com", "user2@example.com"],
  "weights": {"homework": 0.01, "project": 0.99},
  "assignments": ["hw1-123456"]
}]
```

Assignments collection

```
[{
  "id": 10309,
  "class": 123456,
  "name": "HW 1",
  "type": "homework"
},
{
  "id": 10310,
  "class": 123456,
  "name": "Project 1",
  "type": "project",
  "members": [
    "user@example.com",
    "user2@example.com"
  ],
  "rubric": [
    {
      "category": "unboosted-ness",
      "maximum-score": 10,
```

```

        "score": 1
    }
]
}]

Submissions collection
[
  {
    "id": "sub-hw1",
    "class": 123456,
    "assignment-id": 10309,
    "type": "file",
    "submission": "/path/to/file"
  },
  {
    "id": "sub-p1",
    "class": 123456,
    "assignment-id": 10310,
    "type": "text",
    "submission": "https://github.com/anyakeller/rocket-sammies"
  }
]

```

Component Map

- Templates:
 - login.html
 - dashboard.html
 - gradebook.html
 - input.html
 - class.html
 - assignment.html
 - project.html
 - user_common.html
- Flask:
 - app.py: Contains main view routes, and runs the app
 - decorators.py: Contains decorators for app routes
 - api.py: Contains flask blueprints for REST api endpoints
 - Utils:
 - security.py: Handles creation of new accounts and the validation of login credentials
 - notifications.py: Routinely checks for any notifications to send based on changes to database
 - export.py: Creates various different spreadsheets based off of grades, students, groups, assignments etc. Can also export to a separate file of the user's choosing.

- grading.py: Uses weighing values in database to assign grades to a project easily and in a customizable manner
 - graphs.py: Using D3 or some other graphic library, will create graphs based on grades to help analysis and provide useful visual information for the user
 - input.py: Can be used for manually inputting grades into database for assignments other than projects
- Data:
 - mongo.py: Interacts with mongoDB to retrieve information for other files
 - Keeps data on accounts, students, classes, assignments, submissions, and dates
- Bootstrap mumbo-jumbo

Site Map

- Login page
- Dashboard
 - overview of courses
 - notifications, e.g: "x, y and z submitted w"
- Gradebook
 - View grades in a spreadsheet-like format, by student (all his/her assignments), or by assignment (all students), either from one class or all classes
 - An export to spreadsheet feature
 - Give grades on assignments projects
 - *Extra functionality*: draw graphs and make comparisons between classes, forms on tests, etc.
- Class view
 - list and/or calendar of upcoming assignments
 - roster of students in the class
- Assignment view
 - list of groups/individuals working on this assignment
 - the rubric
 - upcoming deadlines
- Project viewer -- see aspects of a given student's or group's project