

University
of WindsorSchool of Computer Science
<https://cs.uwindsor.ca>**Master of Applied Computing**

COMP-8347

Internet Applications and Distributed Systems

Project Description

Your task is to create a website using Django, Python, and PyCharm which you will learn during your lectures and labs. This website should be based on the theme of “Forex/Crypto Trading”. A sample website of such type is <https://coinmarketcap.com/>.

Mandatory Features

- Your website should contain all the necessary things you will learn during the labs/lectures such as creating and editing models, views, templates, forms, user sessions, cookies, authentication, and so on.
- Based on the group size, each student’s contribution should be justified. Ex. For each student, 2 forms, 2 models, 2 templates, 2 views, login page, and so forth.
- Should contain an option for **Currency Exchange**: Ex. Bitcoin to USD in case of crypto website, EURO to USD in case of forex website, and so on.
- Should contain different interfaces for **Registered/Unregistered** users. Ex. <https://en.myfxchoice.com/lp/trading-walk-get-bonus/>
- Should contain a **top menu/bar** which shows current trends, charts, patterns, rates, etc. See for example the “Highlights” button on the top right corner of <https://coinmarketcap.com/>.
- Should contain a **Payment Gateway**: Allows users to buy/sell currencies/stocks.
- Should contain a **Payment History** section: This should contain user’s previous history of stock/crypto currency payments (buying/selling).
- Must ask a user to **upload his/her valid ID or photo** while registering.
- Design and color scheme of the website should be good.
- Should be made using the tools learned in the class (ex. Python, Django, and PyCharm)
- Tools such as GITHUB and JIRA (or anything similar) must be used to keep track of the project. Students progress with commits and dates will be checked while grading.

Other Features

- Save your database in JSON format. Load initial data using fixtures.
- Update index and detail view functions in **views.py** to use class-based views (<https://docs.djangoproject.com/en/3.1/topics/class-based-views/>).
- Use Bootstrap to style your pages.
- Login, logout, and forgot password features.

Groups, Submission, Due Dates, and Marking Criteria

- **Group Size** = As specified in the outline
- **Submission** = Only via Brightspace. Submit an MS Word document that should describe your project including the steps you performed to create your website, the motivation and reason for choosing your idea, the role of each team member (preferably a table or a graph), and the related screenshots. This document should have the links to your website and complete code files stored on GitHub. The word file should not be submitted as a part of any folder. You should also submit the main views.py, models.py, forms.py, and related template files along with the word document. These files should not be submitted as a folder.
- **Due Date** = Sunday of Week 10 (November 26, 2023), before midnight. Only one submission attempt is allowed.
- **Total Marks = 20.** You will be judged on:
 - Individual oral exam/viva
 - Your progress on GitHub and JIRA
 - Completion of the project
 - Running your website without errors
 - Satisfaction of the mandatory features
 - Additional features
 - The overall look of your website
 - The documents and files you submit on BB.
 - Your presentation

Note 1: As specified in the course outline, the above mark distribution/criteria may subject to change. For example, based on class's performance, all the marks can be allocated for the project viva/oral examination and individual contribution.

Note 2: Every group member should have coding contribution using Python/Django/PyCharm.

Note 3: Usage of ChatGPT or taking code from other sources will result in '0' marks.

Note 4: Do not forget to add your GAs to your GitHub and JIRA repositories/pages.

Note 5: Usage of APIs should be minimal (wherever there is no other choice).

Presentation Schedule and Details:

- Presentations will be conducted in Week 11 (during lectures November 28, 2023, for Section 3 and November 29, 2023, for Section 4)
- Presentation duration for each group (**subject to change**) = **15 Minutes + 10 Minutes** for Question/Answer session.
- You may prepare a PowerPoint presentation -OR- directly run the application demo - OR- combine both, however, running your application in front of the audience is mandatory.
- The order of presentations will be decided randomly during the class.

- All group members should be physically present during the presentation.
- Attending all other presentations is mandatory.
- Further points will be added later on Brightspace.

Viva/Oral Exam Schedule:

During the lectures of Week 12 (December 05, 2023, for Section 3 and December 06, 2023, for Section 4).