# AI model marketplaces

## Short description

**Team registration deadline:** Friday 10 February @ 23:59
**Project submission deadline:** Thursday 16 March @ 23:59
**Total credits:** 40% | Credits for team registration: 1% | Credits for providing additional functionalities: 6% | Credits for individual report: 1%
**Submission:** Via Brightspace. Different assignments will be created for each deadline. Use the following naming convention for each of your submission `{student_ids}__{registration | final}.zip`. For example, the final report of a team with four students with ids 1234, 5678, 9012, and 3456 should be named `1234_5678_9012_3456__final.zip`
Send an email to `dimitris.chatzopoulos@ucd.ie` for any questions.

## Detailed description

In this project you will work in teams of 3 to 5 and you will implement an AI model marketplace. Single person teams will be accepted under special conditions. The minimum functionalities that should be supported by your marketplace are a catalogue, a shopping cart, a checkout, and a (fake) purchasing mechanism (e.g., PayPal).

(i) **Catalogue.** The catalogue should include pages for browsing list of AI models and a page for displaying details of an individual model. Your marketplace should include at least 10 different models. The AI model list page should present all the available models to the customer. For each model, there should be a name, a price for the trained version of the model and a price for the untrained version. You should be able to click on a model to go to its individual page. The individual model page should include, as a minimum, a name, a description, and the prices. You should also have a purchase button. *You are welcome to add more information.*

(ii) **Shopping cart.** The shopping cart should display the list of the AI models you intend to buy. It should allow you to remove models from the list or change your selection regarding the trained/untrained version. It should provide the price of each model and give the total price to be paid. There should be a checkout button to take you to the checkout and purchasing part of the system.

(iii) **Checkout.** The checkout should capture key customer information and request payment details. You can pretend that every user enters valid details for now. Completion of payment should create an order that is made visible to the marketplace owner. The fake payment system should generate some form of payment id that should be associated with the order. The order state should be modifiable to indicate that the order is new, has been cancelled or has been delivered.

(iv) **Customer.** Customers must sign up to purchase models so you don't need to implement guest payment (i.e. if you don't have an account or are not logged in, you cannot buy models). A customer should be able to log on to the system and see a history of their previous purchases. When viewing the available models, a customer can select if she is interested in a trained or untrained version.

(v) **Marketplace owner.** An administrator login should be provided that allows the marketplace owner to create new products, review orders, and change the state of the order. The marketplace owner should be able to change the model details (but not the name). It is essential that, when a model price is changed, the historical prices on existing orders does not change, but that they reflect the price actually paid. The marketplace owner should be able to hide, but not delete existing models (all models must be kept so that they can be matched to items in orders).

Please note that you are expected to use a Git repository to develop the project. Once you register your team, you will be requested to add the TA and a demonstrator to the repository.

| | Requirement ID & Description | Credit |
|---|---|---|
| general | $G_0$ : View the models currently on sale. | 2% |
| | $G_1$ : View details about a particular model. | 2% |
| | $G_2$ : Add a model to a shopping cart. | 1% |
| | $G_3$ : Update the shopping cart. | 2% |
| | $G_4$ : Create a customer account. | 2% |
| | $G_5$ : Log in to their account. | 1% |
| | $G_6$ : Something extra | 2% |
| Customer | $C_0$ : Go to the checkout to purchase orders in their shopping cart. | 2% |
| | $C_1$ : Use a (fake) payment portal to pay for their goods. | 2% |
| | $C_2$ : View their order history. | 2% |
| | $C_3$ : Something extra | 2% |
| Owner | $O_0$ : Login to the marketplace. | 1% |
| | $O_1$ : Add models to the marketplace. | 2% |
| | $O_2$ : Hide models to make them no longer available. | 2% |
| | $O_3$ : View all orders. | 2% |
| | $O_4$ : Change the state of orders. | 1% |
| | $O_5$ : Edit model details. | 1% |
| | $O_6$ : Something extra | 2% |
| Documentation | $D_0$ : Team registration | 1% |
| | $D_2$ : Video Demo | 4% |
| | $D_3$ : Wireframe design of the project | 1% |
| | $D_4$ : Final report | 2% |
| | $D_5$ : Individual report | 1% |

Table 1: Table of requirements.

## Documentation guidelines

(i) **Team registration.** You need to submit an HTML page that contains: *(i)* team's name, *(ii)* the name, the email and the student ID of each team member, *(iii)* a photo of each of the team member or a photo with all the team members, and (iv) a table with all the requirements and the team member who is responsible for each requirement (more than one team members can work on one requirement but one has to be responsible for its delivery - these names can change on the final report). Create a zip file with the HTML file and supplementary material and submit it via Brightspace. Please note that the deadline for this is Friday 10 February @ 23:59.

(ii) **Video Demo.** Demonstrate your marketplace while recording your screen. You can use Zoom to do that but you are free to you any other tool you want. The video format should be mp4.

(iii) **Wireframe design of the project.** A wireframe design of your project will help you with the development of your project as well. So, do not consider it as an additional task that gives you extra credit but use this design to decide how you will develop the project.

(iv) **Final report.** Update the HTML page you submitted for the team registration to produce the final report. The final report should include *(i)* a table with all the requirements you think you have completed and what additional requirements you added to get the extra credit. This table should include a column that will contain the member of the team who was responsible for each of the requirements and any other members that contributed. Additionally, the final report should contain *(ii)* the wireframe design, *(iii)* instructions on how to install and run your project, and *(iv)* reflections on what you have learnt through the project and what you would do differently.

(v) **Individual report.** After the submission of the final report of the project. Every member needs to submit an individual report that will describe which parts of the projects they implemented.