



# The Flatland Challenge Contest Server

## Submission instructions

Hey train schedulers and AI experts! We're glad to announce that the contest server for the FIT5222 Flatland Challenge is online at [fit5222.contest.pathfinding.ai](http://fit5222.contest.pathfinding.ai)

We ask that you read the following instructions before making submissions.

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## Evaluation Characteristics

We'll run your code on Flatland problems of various sizes and configurations. Then we'll evaluate its performance based on the assignment 1 specifications. *Problem instances on the server are hidden* (but closely resemble your local problem set).

### Instance Characteristics

Your scheduler will be tested on the following instances.

Level	Map Size	Number of Agents	Max Time Steps	Amount
0	10 x 10	5	160	8
1	25 x 25	12	400	8
2	50 x 50	25	800	8
3	75 x 75	37	1200	8
4	100 x 100	50	1600	8
5	150 x 150	75	2400	8
6	150 x 150	150	2400	8

### Malfunctions

In some instances, there's a 1/10 chance at each timestep that a malfunction will occur. The malfunction may last anywhere from 5 to 15 timesteps.

### Ranking and Scoring Policy

Your submission is ranked by the  $f$  score of question 3 on the leaderboard. To place on the leaderboard (and to be eligible for contest ranking marks), **you must beat the Staff Baseline.**

x

For marking, your best score for each individual question will be used. For your score to count, **you must submit your code using a Bitbucket account associated with your Monash University email.** Only code that has been *submitted* prior to the due date will be counted for scoring. Submissions that are submitted before the due date, but not yet executed (due to position in queue), DO count as on-time and will be scored.

## Hardware and Software Environment

- The server evaluates your code with Python 3.8 in a virtual environment with `flatland-rl` installed.
- You'll be allocated one CPU core at 2GHz and a **memory limit of 4GB**.
- For evaluating all instances for each question there is a **2 hour time limit**.
- All submissions must be in Python only. You won't have access to any networks.

If your submission takes more than 2 hours or more than 4GB memory the process will be killed, and all unfinished instances will get an SIC of  $T_{max} * total\_agents$ .

## Server Etiquette

- You may only have one submission queued or running on the server at any given time.
- You may cancel a submission while it is in queue if you want to submit another one. You'll join the end of the queue.
- When submitting tests for Q3, we ask that you remove Q1 and Q2 from your submission to receive faster feedback (the server has to run Q1, Q2, and Q3 in order). This is beneficial to YOU and well as to your fellow contestants.

**Make sure to engage with the assignment EARLY.** Towards the submission deadline, the server may be overwhelmed with submissions and **there will be large queues**. **As such, you may have to wait many hours for feedback.**

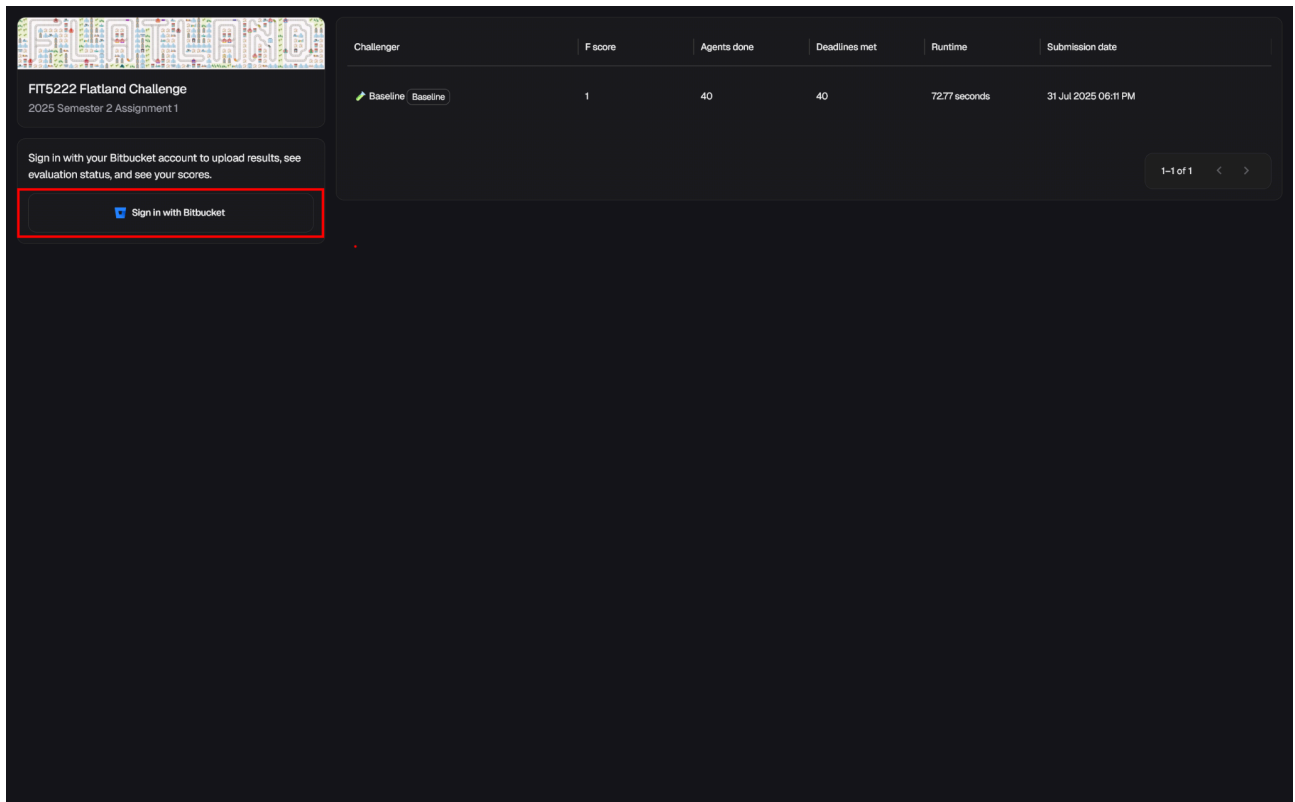
**Remember that you can run your implementations *locally* on your own machine for faster feedback.** While the problem instances on the server are hidden, they are made to closely resemble your local instances, and a good implementation should return very similar results on either problem set.

A good rule of thumb is that while testing and bugfixing your implementation, you should run your code *locally*. When you have been successful or have made significant improvements, you should then make a submission to the contest server.

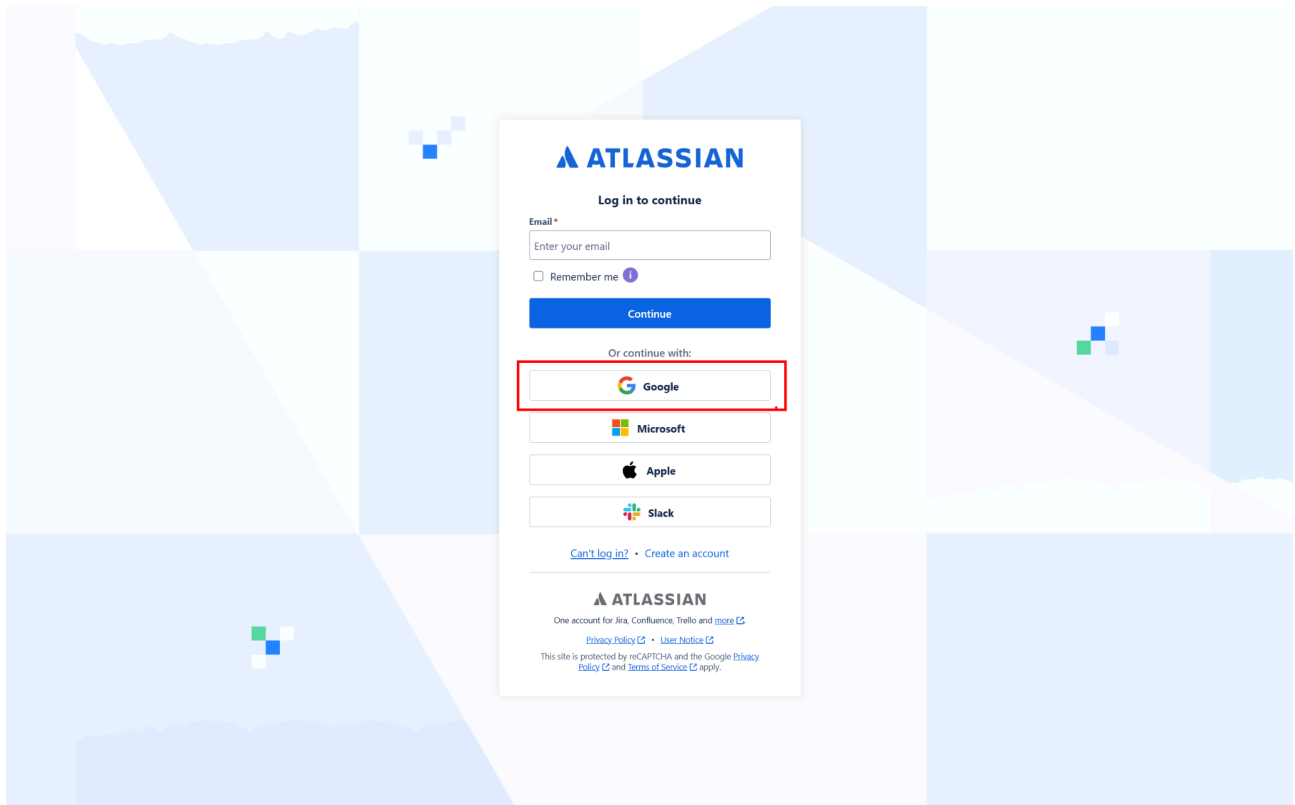
## Using the Contest Server

### Log in


Open the contest website, [fit5222.contest.pathfinding.ai](https://fit5222.contest.pathfinding.ai). Click “Sign in with Bitbucket”.



If you're not automatically logged in, choose “Continue with Google”. Then, follow its prompts to log in with your Monash University credentials.




You should eventually be returned to the contest site. Congratulations, your account is set up!



### FIT5222 Flatland Challenge

2025 Semester 2 Assignment 1

**Kevin Zheng**  
kevinzheng.testing@gmail.com

#### Set a nickname

You can set a name that'll appear on the leaderboard. By default, you'll appear as an anonymous challenger.

Saved

#### Create a submission repository


You can create a repository to store your submission.

Create repository

#### Add a submission

Upload your code to be evaluated. Only one submission can be in the queue at once, please cancel your queued submission before adding a new one.

Choose source

 spaaaaacccoe/kevin-zheng-cd39 testing  
246f435

Only branches with commits are shown

Workspace

spaaaaacccoe

Repository


kevin-zheng-cd39

Branch

testing

Commit

Kevin <kzhe0012@student.monash.edu>, 10 days ago

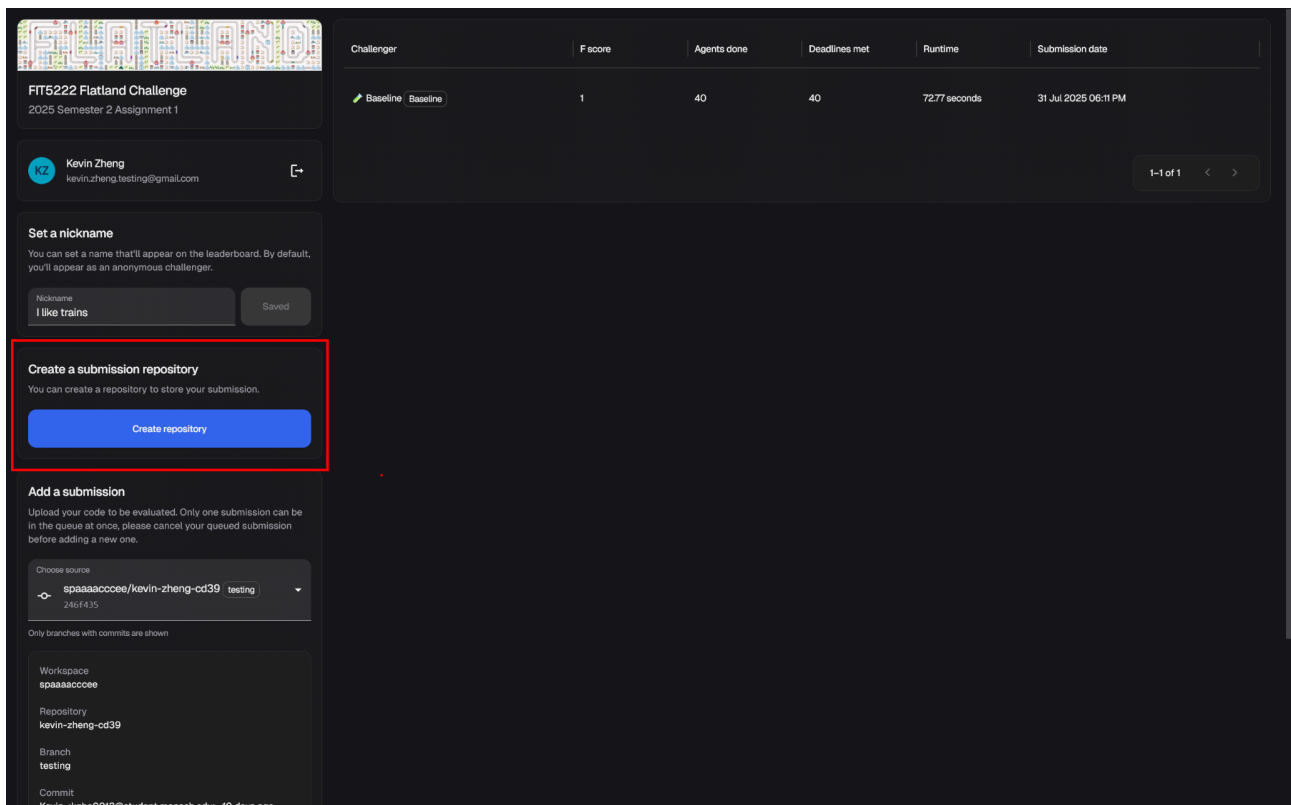
Challenger	Score	Agents done	Deadlines met	Runtime	Submission date
 Baseline Baseline	1	40	40	72.77 seconds	31 Jul 2025 06:11 PM

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## Create your repository

### Option 1: Let us create one for you

You can also let us create one for you. To do so, click “Create repository” here.



The screenshot displays the FIT5222 Flatland Challenge submission interface. The top section shows the challenge title 'FIT5222 Flatland Challenge' and the semester '2025 Semester 2 Assignment 1'. Below this, the user's profile 'Kevin Zheng' is shown. The main section is titled 'Set a nickname' and includes a text input field with the value 'I like trains' and a 'Saved' button. Below this, the 'Create a submission repository' section is highlighted with a red box. It contains a 'Create repository' button. Further down, the 'Add a submission' section is visible, showing a dropdown menu for 'Choose source' with the selected value 'spaaaaaccee/kevin-zheng-cd39 testing'. Below the dropdown, a list of branches with commits is shown, including 'Workspace spaaaaaccee', 'Repository kevin-zheng-cd39', 'Branch testing', and 'Commit Kevin <kzhe0012@student.monash.edu>, 10 days ago'.

We'll create a repository for you and invite you to it. Look for an email in your inbox from Bitbucket.

After you accept the invitation, you should have access to a personal repository.

### Option 2: Create one yourself

Check out the official tutorial on how to create a repository.

[Create a Git repository](#)

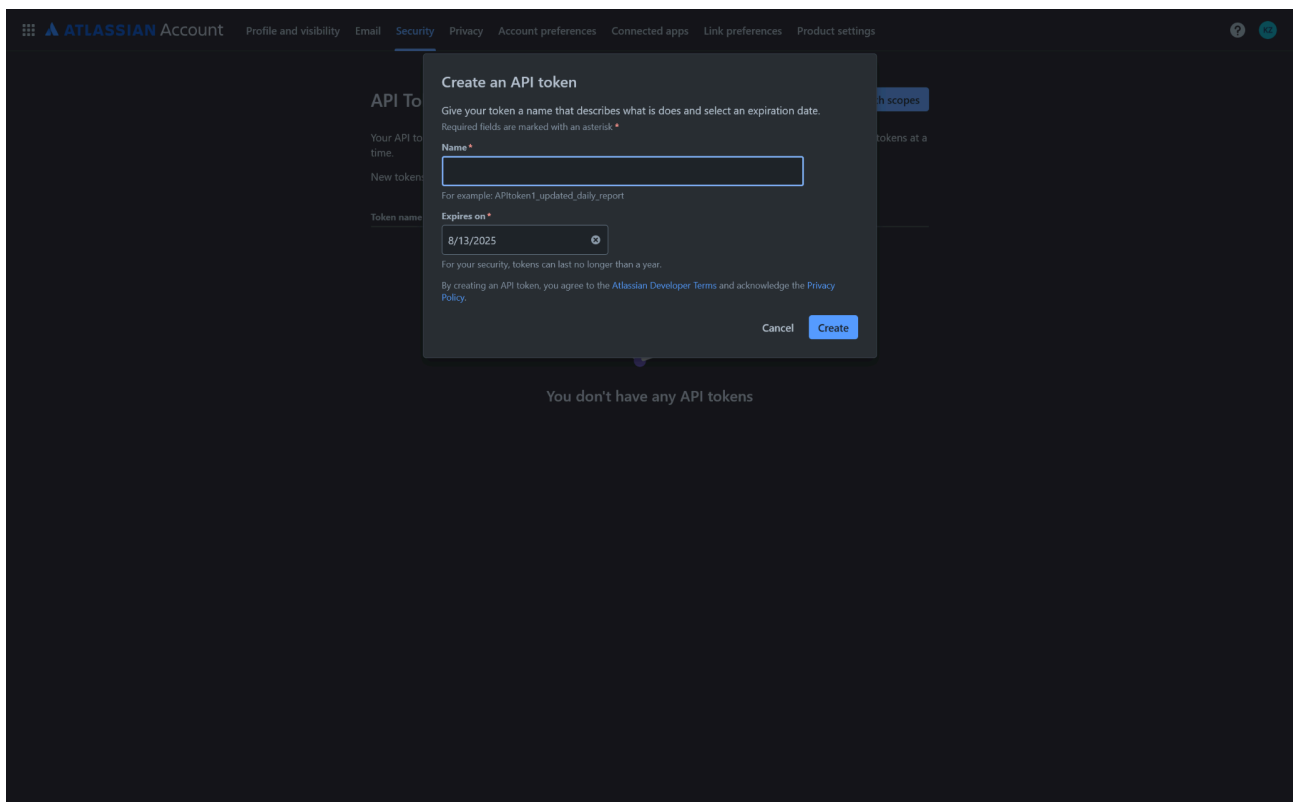
## Push your code to the repository

It takes a little setup before Bitbucket lets you push your local code to it, because unlike other Git providers, Bitbucket doesn't let you use your account password to authenticate yourself. You'll need to create an app password or API token instead, which you could use when prompted for your password.

Starting September 9, you'll no longer be able to create an app password as per the official instructions. Instead, use an API token: [Using API tokens](#). You can also use SSH instead, but it takes a bit more setup: [Configure SSH and two-step verification](#).

### Creating an API Token

In Bitbucket, on the top right corner, choose "Atlassian account settings". Then in the Security tab, choose "Create and manage API tokens". Choose "Create an API token" and follow its instructions to receive an API token. You can now use this in place of your password.



For more information, check out the official instructions for pushing code via Git to a Bitbucket repository: [Push updates to a repository](#).

## Submit your code

When you have your code ready in a repository, you'll see it in the drop down here. You'll only see repositories with at least one commit. You must also have write access to those repositories. Select your desired branch and verify that the commit info is correct. Click "Submit" to add it to the submission queue.

The screenshot shows a dark-themed web interface for submitting code. It has three main sections: 'Set a nickname', 'Create a submission repository', and 'Add a submission'. The 'Add a submission' section is the active one, showing a 'Choose source' dropdown menu with a red box around it. The dropdown shows a repository named 'spaaaaacccoe/kevin-zheng-cd39' with a branch 'testing' and a commit hash '246f435'. Below the dropdown, it says 'Only branches with commits are shown'. Further down, it shows details for the selected source: Workspace 'spaaaaacccoe', Repository 'kevin-zheng-cd39', Branch 'testing', Commit 'Kevin <kzhe0012@student.monash.edu>, 10 days ago, Update gitignore', and Commit hash '246f435'. At the bottom of this section is a blue 'Submit' button. Below the 'Submit' button is a 'Jobs' section that currently says 'No jobs found'.

## Inspect jobs

In the "Jobs" panel, you'll see your job getting queued, eventually picked up and evaluated. If your submission errors, you can click on the job to see error messages. You can cancel queued jobs by clicking the cross.

## Set a nickname for yourself (optional)

You can set a nickname that'll appear publicly on the leaderboard. You'll appear as an anonymous challenger by default. **NOTE: your username *must be appropriate*** in a classroom setting. Inappropriate nicknames may be penalised. If you are in doubt, choose a different nickname. We think that nicknames are a fun option of personalisation, but **this is a *privilege* that we may have to *revoke* if a select few abuse this.** Nicknames must **NOT** include the word "Staff".



## Report a problem

If you have any problems with the contest server, you should ask a question on the Ed forum, and one of our staff will pick it up. Keep in mind you have an option to ask private questions.