







What is MATLAB?

MATLAB is a programming and numeric computing platform used by millions of engineers and scientists to analyze data, develop algorithms, and create models.

MATLAB is designed for the way you think. It's easy to learn, user-friendly and allows you to efficiently translate your ideas into usable code.



2 How to get MATLAB

You will need a <u>MathWorks Account</u> to participate in the hackathon. If you are a student, your university may already provide MATLAB access. <u>Click here</u> to see if you already have access.

If you do not already have access, <u>request a free license</u> issued for your participation in the MATHack Western Cape 2022 hackathon.

3 Getting started with MATLAB

Free online tutorials are available at <u>MATLAB Academy</u>. Quickly learn the basics of MATLAB in just two hours, with the self-paced interactive <u>MATLAB Onramp Course</u>. All the courses available at the MATLAB Academy can be completed via your web browser and all Onramps are freely accessible.

Why not to try <u>Machine Learning Onramp</u> or the <u>Deep Learning Onramp</u>? Other resources, such as documentation, code examples, and how-to videos are available here.















4 Useful MathWorks tools to know before the hackathon

MATLAB Online Use MATLAB in your browser; no installation required – type in your browser: https://matlab.mathworks.com/

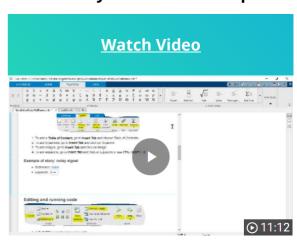
MATLAB Drive Share files up to 5Gb, very useful for team works – type in the browser: https://drive.matlab.com/

MATLAB Live Use an interactive Notebook for Scripts your Hackathon submission.
Live Scripts combine code, text, formulas, results and images – Visit the Gallery to see few examples

MATLAB Mobile Use MATLAB directly from your Apple/Android device

ThingSpeak IoT Platform

Create your first Live Script



MATLAB Apps Solve your MALATB problems without writing any line of code

MATLAB App Create your own App and tackle the problem statement of the Designer Hackathon with a breakthrough solution. Additionally, check this video on MATLAB App Designer and go through this tutorial to create your first App

Prepare yourself for the hackathon

- MATLAB Code Examples
- MATLAB for Data Science
- MATLAB for Machine Learning
- MATLAB for Quantitative Finance and Risk Management
- Discover How to Solve Your Computational Problem

5 On the day of the hackathon

- View existing questions in <u>MATLAB Answers</u>
- Ask a question in MATLAB Answers Tag your submission with "hackathons"







