INTERACTIVE MATLAB TUTOR
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Motivation
- Build a learning tool for people who want to learn to program.
- Build a tool that supports different learning styles. (Assessments, tutorials, visualizations, etc.)
- Enable minimally supervised learning through automated feedback.
- Build a system that guides students through course materials and problems smoothly.

Results
- Over 500 commits
- New features are developed on separate branches
- Uses issues to keep track of current bugs

Broader Impacts
- Encourage self-learning through automated feedbacks
- Supports various learning styles
- Encouraging diversity in engineering fields

“I wish we had this when I was taking the class” – Beta user

Project Goals
- Clean and easy to use system.
- Assist students in learning core MATLAB programming concepts such as loops and decision structures.
- Online platform that is accessible to anyone.
- Content creation that allows for teaching of multiple engineering disciplines
- Unsupervised learning through automated feedback

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Glossary
- API: Application Program Interface
- REST: Representational State Transfer
- Student View: User view
- Admin Panel: Toolbox to Build Lectures and Assessment
- MongoDB: Database
- Express: Web Framework
- Angular: Web Framework
- Node JS: JavaScript Runtime Environment
- CS: Computer Science

Course Materials
- Lecture video specific to current chapter
- Videos tailored to exercises problems
- Entire chapter is available at any given time