SE Deployment Workshop: *Extreme Startup*

17-313 Fall 2023 Foundations of Software Engineering <u>https://cmu-313.github.io</u> Andrew Begel and Rohan Padhye





Learning Goals

- Get familiar with continuous deployment
- Deal with fast-changing requirements based on user demand, which scales with success rate / user base
- Understand the value of in-house testing before deploying to production
- Differentiate between missing features and wrong behavior in a production system





Extreme Startup game

• Maintained by Robert Chatley, Matt Wynne, and Mike Sorokin (Imperial College London)

You will need:

- URL of deployed basic-web-app: <name>.onrender.com or <name>.run.app (GCP)
- Keep it running, open build logs to monitor
- Test API by going to <url-of-your-app>/api?q=shakespeare
- A name for your player (work in teams of 2-3)
- Ready terminal, git, code editor, etc. to make changes and deploy quickly!









Joining the game: Warmup round

- <u>https://extreme-startup.fly.dev</u>
- Join the game: <game ID> on board
- Enter player name (remember this name!!)
- Enter app URL. Be sure to include "/api" at the end
 - <name>.onrender.com/api or <name>.run.app/api (GCP)
- Keep the game window/tab open at all times. It will show you your score and next steps.
- Look at incoming queries on your player page
- Your app needs to respond to these queries correctly to gain points
- Test, implement, and push a change quickly!





Takeaways

- Continuous deployment (auto-deploy on push) makes it easy to land changes in production
 - But there is always some delay in the feedback loop after your push
- Not having a feature is better than performing incorrectly
- Requirements can change quickly based on user demand
- User demand scales with success in production
- Local testing can help prevent issues in production, but testing in production might speed things up



