Grand Circus Bootcamp

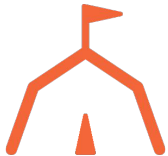Final Projects
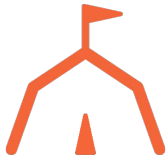
Table of Contents

What Are Final Projects?

What are Final Projects?

In order to bring together all of the skills learned in bootcamp, students work in groups of 3 or 4 on a larger project of their own choosing.

The project idea must meet certain technical requirements and be approved by a staff panel.

Project Requirements (C#/Java)

1. Must create at least 3 wireframes

2. Must use Angular

3. Must use a third-party API not used in class. API must return JSON or XML data. Exceptions may be approved by instructor(s) on a case-by-case basis)

4. Must include an API created with Spring Boot and a PostgreSQL database with access via Spring Data

5. Database must include at least 2 tables; encouraged to include a foreign-key relationship between 2 tables

6. Project must represent each part of CRUD (Create, Read, Update, Delete) in some way

7. May be hosted in the cloud on AWS or Azure

Who's in My Group?

Groups will be **revealed at final project kickoff**.

Groups are decided by your instructor(s), TA(s), and program manager(s) and are based off of passing the assessments, demonstrating positive growth, your performance during midterms, your contribution to group-work in class, and communication style.

Groups, once announced, are final. Just like we can't choose our coworkers, we cannot adjust who is in our group.
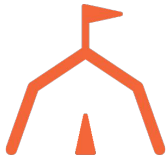
Preparing for Projects

Final Project Planning

Your group will have only a couple hours after kickoff to decide on and pitch a project idea.

You should each individually start coming up with several ideas now. Feel free to bounce ideas off of each other and the staff.

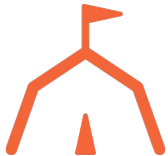Use [Final Project Planner](#) to help you prepare at least 3 ideas.

Tip: Focus on What You've Learned

Focus on how this project can be a vessel for demonstrating your skills as a developer.

This isn't about your best business idea.

Your audience isn't venture capitalists - it's employers!
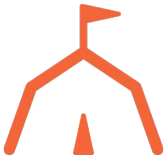
Tip: Use the Whole Stack

Your front end (built in Angular) should make data look magical. You should also have a back end (API) your group creates that includes both reading and writing to a database.

Tip: What Makes a Good Idea?

Think of a problem and how you can use code to solve it. It can be silly or serious, but you should solve it simply.

Get excited and work on something that you would want to use yourself.

Tip: Do the Research

If you will use a third-party API, research it thoroughly, and then look for backup APIs. What data is this giving you and how can you use that data well?

Choose an API that can be a meaningful part of your project.

Tip: Meaningful API and Database

Demonstrate your ability to use data by having your API and Database as a core component of your project. What is the core problem you're tackling? Get data there.

These should not be a side feature or afterthought.

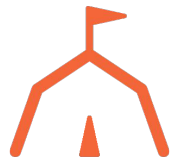# Want to see some Examples?

C# & Java

PaperTraderz

Libri

Build a Grid

JS

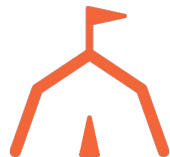National Treasures

Pokemon

Find My Pawrents

During Final Projects

General Rules

- 6:30pm - 10pm are still class hours.

- Standups are mandatory for all group members.

- Instructors & TAs are your coaches and advisors, if you need help, go to them.

- Treat group mates with respect and compassion.

Daily Standups

Your instructor will schedule a daily time to check in with your group and track progress.

This is an opportunity to stay in sync and catch any problems before it's too late.

Daily Standups

Be honest with your instructors about your project and progress. Bring up any and all issues during your standup so that you can resolve these early. Discuss:
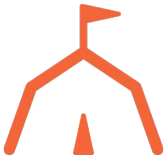
- Status of your Trello board tasks
- What you worked on yesterday
- What you are working on today
- What challenges you are facing
- Game plan moving forward as a group!
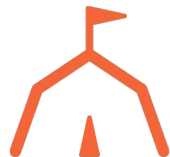
Tip: Start by Planning Together

The more time you spend making a plan, setting up your Trello or PM app with tasks, and communicating effectively, the more smoothly your project will go overall. Plan before you build.
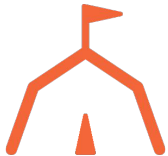
Wireframes are required. A picture is worth a thousand words, and these will help your team and your instructors be on the same page.

Tip: Feedback Is a Gift

Your teachers, program managers, and Grand Circus staff, are experts. We want your project to succeed - and we've seen a lot of projects. Trust our feedback & put it into action.

"We open our gifts and say thanks."
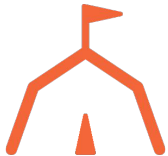
Tip: Communicate

You have at least one standup a day with your instructors, but that doesn't limit you to having more. You should talk to your groupmates way more than once a day.
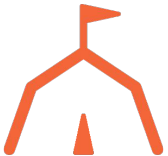
Tip: Pair Program

Everyone doesn't need to do every piece of the project, but everyone should contribute meaningful code to the project. Work in pairs to accomplish major portions of your work.

Tip: Commit

Commit regularly to make sure the group is on the same page. Commits should be made from everyone's computer to show as an author. Do not designate one person to commit.

Tip: Feedback Wisdom

- Assume humans are good and doing their best.
- Do NOT stockpile!
- Prepare your feedback in advance, with (a) specific example(s).
- Ask permission to give feedback.
- Reach out to your Program Manager for guidance on giving and receiving feedback effectively!
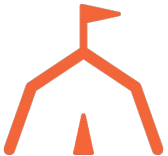
Events to Be Aware Of
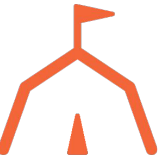
Dates

Daytime and after hours classes will have separate timings for each event. You can find most of these in the curriculum calendar.

Events During Final Projects

- [Project kickoff](#)
- [Pitch Panel](#)
- [API Checkpoint](#)
- [Project Group Retro](#)
- [MVP Demos](#)
- [Tech Endorsements](#)
- [Pitch Video](#)
- [Code Freeze](#)
- [Submitting your Project](#)
- [Graduation](#)

Project Kickoff

The GC staff will go over final project timeline and you will learn who's in your group!

Pitch Panel

Once Project Kickoff finishes, you and your group will discuss ideas and decide which you would like to use.

Prepare to pitch your project idea to the world's greatest judges within the GC staff.

API Checkpoint

If your project has an external API, there will be a short deadline after kickoff to have it working within your app. We must verify whether you API will work or you need a change in direction.

By API Checkpoint, you must be able to **view actual needed data using your application code**, even if it's just logged to the console.
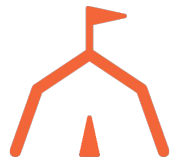
Project Group Retro

Part way through the project, your group will meet with the Program Manager to retro how the project and teamwork are going so far. This is a chance to provide feedback to team members and find better ways of working together.

BEFORE the session, prepare (as in, write down) what's gone well, what hasn't gone well, and what changes can be made!

Group Evaluation Survey

Prior to the Group Retro, you will receive a feedback survey in order to provide some reflections about other members in your group.

Only staff will read your responses. You are encouraged to share your feedback directly with your peers during the retro.

- Be honest and open about issues that you're facing. This is an opportunity to tackle problems and get them out of the way so that we can have a successful final project.

- Focus on times where your group had a complication, despite if it has already been resolved → Why did that problem occur?

Minimum Viable Product (MVP) Demos

Prepare to demonstrate your group's MVP project. Functionality is the most important part. Visuals are not a priority but shouldn't be completely ignored.

*Participation in MVP demos are a graduation requirement!

Tips: MVP Demos

- Instructors and/or Grand Circus staff will ask you about your progress -- prepare to talk about what your plans are moving forward.

- Be ready to take notes! You'll get feedback on your project that you'll want to remember as you move forward.

- Discuss as a group and with your instructor after what your next priorities will be for your project.

Pitch Video

Creating a pitch video of your app will be one of the last steps to final projects! This video will give you a tangible demo which you can share throughout your job search, showcasing not only your technical skills but your ability to communicate about your code. Your video should include the answers to the following questions:

- Why did you create this app?
- Who is the target user?
- What are the core features / functionality?
- What are your stretch goals for features / functionality?
- What technologies and tools did you use?
- What makes your product unique?
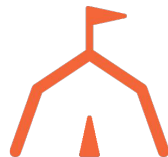
Tips: Pitching Your Project

Even if the project wasn't "your idea," you will need to get comfortable talking about your project in a concise, engaging way to both developers and non-developers.

Tips: Your Pitch Video

- Keep it simple! This can be recorded in Zoom or however else your team chooses.

- 1.5 - 2 minutes is ideal.

- Your group is responsible for **one** pitch video.

- Everyone in your group must participate!

- It's a good idea to introduce yourself, your class, the name of your project, then deliver your pitch.

- After you upload your video Grand Circus we also recommend uploading your video to YouTube to share!
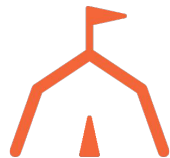
Technical Endorsements

You will be individually asked 3 questions about your project code from a panel. If you are able to answer at least two correctly, you pass. You will be given a chance to retake it if you fail.

You pass or fail this alone.

After MVP Demos, you will be given a study guide to help you. If you pair program often, you don't need to worry.

Tech endorsements are open code, CLOSED NOTES.

*Technical Endorsements are a graduation requirement!

Tips: Technical Endorsements

- Pair program regularly while building your project. Change your pairs regularly.

- Make sure that if one person adds functionality, you have a session to debrief what was added.

- Ask each other questions about the code.

- Find another group, ask them questions about their code and how it works. Have them ask you questions.

Code Freeze

Several hours before graduation, we institute "Code Freeze". This is the deadline to have all your features in. You are no longer allowed to tinker with your project until after graduation is complete.

Why? We know that last minute changes often lead to things breaking, and we don't want broken code at graduation!
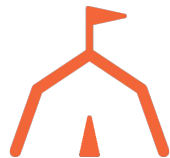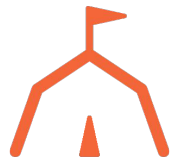
Submitting your Project:

This is what we will need from your before Code Freeze.

https://forms.gle/5LPKb5vV2sTeCU6m8

- The names of all team members.
- The name of your final project,
- A description of your final project
- The project github URL
- Your project website URL
- Upload your pitch video

*Submitting your project is a graduation requirement!

Graduation

Graduation happens with all of the students within your cohort.

A Zoom link will be provided for staff and students while your friends and family will be provided a YouTube livestream link.

A Final Demo of your project is expected at Graduation.

Any Questions?