

## **Blueprint Mentor Guide**

**Thanks for mentoring at Blueprint!** We're excited to have you here. Your job as a mentor is to help students make their own project or app in just 14 hours. This guide will go over some essential mentor information. If you have a question, just ask one of our team members (gray badges).

Day-of Info Portal: <a href="http://blueprint.hackmit.org/dayof/">http://blueprint.hackmit.org/dayof/</a>

Day-of Phone Hotline: 224-900-BLUE (2583)

#### **GOALS**

We have three main goals for Blueprint:

- Help students develop practical coding skills
- Inspire interest in computer science and engineering
- Provide opportunities to use these new skills

We're honored that you're spending your Saturday with us to help achieve these objectives.

#### **RESOURCES**

Because most students at Blueprint will be first time programmers, we've set up workshops in three areas: **iOS**, **Android**, and **Web development**. These three areas will include hourly presentations (starting after kick-off and ending at 4PM) on topics useful to beginners.

#### **PRIZE CATEGORIES**

While we don't want to focus on competition at Blueprint, we \*do\* want to encourage students to build something cool. Here are the prize categories:

- Best Health and Fitness App
- Best App That Will Make Student's Lives Better
- Most Humorous App
- Most Technically Challenging App
- Best App to Make Life Easier
- "It Just Works"
- Customer Obsession (focused on users)

At 8:30PM, hacking will stop and a team of 10 judges will evaluate student projects. Before then, it would be helpful to give a teams a few tips on how to present their project to judges clearly.

## **BLUEPRINT SCHEDULE AT A GLANCE**

| Time             | Activities                                   | Description  | How You Can Help   |
|------------------|--|--|--|
| 8:00 - 9:00      | Breakfast,<br>Check-in, and<br>Brainstorming | Students begin to ideate on potential projects               | <ul> <li>Help students set up their coding<br/>environment</li> <li>Help students generate ideas, form teams</li> </ul>  |
| 9:00 - 9:30      | Kick-off<br>Ceremony                         | Welcome and Introductions                                    | Watch the kick-off!  |
| 9:30 - 12:00     | First Coding<br>Session                      | Students begin<br>work on projects                           | <ul> <li>Help students continue to brainstorm ideas and to get started implementing them</li> <li>Direct students to useful workshops</li> <li>Remind students to form and submit teams by 11:00 AM</li> </ul> |
| 12:00 - 1:00     | Lunch & Break                                | Catered lunch and optional quick tour of MIT campus          | Enjoy a delicious meal from Clover!  |
| 12:00 - 6:00     | Second<br>Coding<br>Session                  | Students continue<br>working on<br>projects                  | <ul> <li>Help students build up their projects</li> <li>Direct students to workshops and other mentors who might be helpful</li> </ul>   |
| 6:00 - 7:00      | Dinner                                       | Catered dinner   | Enjoy a delicious meal!  |
| 7:00 - 8:30      | Final Coding<br>Session                      | Students wrap up projects                                    | <ul> <li>Help students polish projects</li> <li>Work with students to rehearse pitches prior to demos</li> <li>Remind students to submit projects by 8:30 PM</li> </ul>  |
| 8:30             | BUILDING<br>STOPS                            | JUDGING<br>STARTS  |  |
| 8:30 - 9:30      | Judging                                      | Students demo<br>projects science-<br>fair style             | Listen to demos and check out the final products!  |
| 9:30 - 10:00     | A capella<br>show                            | Performance by MIT Resonance                                 | Enjoy the show.  |
| 10:00 -<br>10:30 | Closing<br>ceremony                          | Keynote by Baris<br>Yüksel, awards,<br>and selected<br>demos | Listen to a talk by a prominent Google engineer and watch demos of several top projects!   |

# Tips for Mentors.

#### **About**

Pilot is a national organization driven by a belief in learning by doing. We hold hands-on educational events for high school students. Students form teams, brainstorm ideas, work together to bring one of those ideas to life with technology, and then demo and pitch the apps/websites they created for awards and prizes. We engage the local community by bringing in engineers and designers who mentor these students over the course of a day and help them bring their ideas to life.

Through this process students learn how to think creatively, pitch and demo their projects and more practical skills like how to code and design. Most importantly, they learn how to learn. Pilot is teaming up with Blueprint to make this event happen!

## **Overview**

We believe that the most important thing you can donate is your time and expertise. As a mentor, you set our events apart as a unique and valuable learning opportunity when you lend your technical expertise, project guidance, and coolness to students.

During our events, you help students brainstorm ideas, design their projects, pick technologies to use, provide guidance about collaborating in teams, help track down bugs, and teach them new skills and techniques.

## Tips

- A mentor creates a context that shows you what to think about vs. what to think.
- The role of a teacher is to **create the conditions for invention rather than provide ready-made knowledge**.
- **Don't wait to be asked for help.** Go seek out students, ask them about their projects, and try to help where needed. They might just be shy.
- Don't judge the students based on your skill level, but on theirs.

  Sometimes they miss the simple things, so check those first. It'll save both of you frustration. Remember however that respect is key; so avoid talking down to them.
- Talk to the other mentors! They all come from interesting and unique backgrounds, both in terms of skill set (designer, developer, CEO, etc.) and occupation (startups, college students, corporations, etc.)

- Show an encouraging face! Especially in the beginning, app-development and programming can be frustrating. Your happy, encouraging, and enthusiastic face can really help students who are struggling.
- Having great debugging skills are more useful than trying to write perfect code. Sometimes you'll have to do some searching to find the answer. Talk them through the process. Avoid writing large amounts of code for a student or taking control of the computer, but if necessary, just explain what you're doing as you do it.
- When you don't know the answer, sometimes there's another mentor that does. Try calling them over to help. We can all learn something new.
- Go over good presentation techniques. Help them be concise and make sure they are able to communicate the important aspects of their project. A lot of great projects have lost because of poor demos.

### FAQ

### Do all mentors host a workshop?

Nope! Events usually only have a few workshops that are arranged and prepared in advance. They typically cover introductory topics that would be useful a large group of students.

## What do I during the event?

You walk around helping students do everything from think of their idea, plan it out, work on the design, or fix bugs and errors. Some mentors work with teams for extended periods of time, while others prefer to bounce around. You don't have to be good at everything. Focus on your specialty(s) and point the students in the direction of other mentors if you aren't the expert!

#### I don't know the answer to a student's question. What do I do?

Here are a few suggestions: Tell the student how you might go about finding the solution to get them in right direction, search for the solution together, or ask a fellow mentor!

#### **Thanks**

Thank you for mentoring at a Pilot event. Your help is what makes these events such a unique and valuable learning experience. So again, thank you.