Hackathon

Presented by

hackHer | QUEEN'S
WOMEN IN
COMPUTING

Table of Contents

Introduction

Before the Event

During the Event

After The Event

This guide is adapted from materials courtesy of StarterHacks, SheHacks, and personal experiences shared via Facebook.

Introduction

What Is A Hackathon?

A hackathon is an action-packed event where people come together in teams to develop programs or apps. They usually range from 24 to 48 hours long. Some hackathons are themed, where teams try to develop solutions to problems that fall under that general theme. At other hackathons, hackers have complete creative freedom for what projects they want to work on! Recently, there have been many hackathons to develop resources and medical tools to combat the COVID-19 pandemic. (https://codevid19.com/).

Most hackathons have prize incentives, many of which are donated by hackathon sponsors. Google, Microsoft, Ubisoft, Bell, many large banks, and start-ups are common sponsors that provide free swag throughout the event. For example, this past year at SheHacks (a hackathon run by women for women at the University of Western Ontario), Google gave out a prize for the app that made the best use of Google Cloud API products.

Who Goes To A Hackathon?

At hackathons, you will find people from all different backgrounds. There are students from computer science, business, and design faculties, as well as mentors, entrepreneurs, and people from the tech industry. This means it is a great place to meet new people and expand your network!

For many beginner hackathons, you don't need any coding experience! Have you ever heard of the expression "too many cooks spoil the broth?" Teams will actually do better if they have some people who aren't coding. You need a couple of people to work on your team's presentation and make the graphics for the app.

The sponsor companies will often send recruiters or software developers to hackathons. These people will talk to participants about internship opportunities, hold workshops, and are also available to help with your program.

Before the Event

Preparing for the Hackathon

It is a good idea to first read up on the hackathon you are going to. Take a look on their website at past projects, past sponsors and resources. For many beginner hackathons, you can find great learn-to-code resources on their website.

Most hackathons require you to submit an application to be able participate in the event. Once your application is accepted, the next step is finding a team. If you don't have a group of friends going with you to the hackathon, don't worry! The hackathon organizers will connect people looking for a team. Teams are typically made up of 3-6 people. It is a good idea to make a group chat with these people before the event so you can get to know each other and make a general plan for the weekend. When finding a team, you should make sure that you share common expectations and goals for the hackathon.

If you and your team decide to make a program, you should make some decisions beforehand. In terms of development, you should decide on your tech stack. This includes what coding language you want to use, which IDE's to use (for example Atom, Visual Studio Code, PyCharm), and how you want to work collaboratively (if you want to use Git or Github, or Google Colab, etc). To save time, it's easier if you know of these requirements beforehand in case you need to download any new software, which can sometimes be a time-consuming and finicky process!

It's also important to ensure that your team's skill sets are compatible and compliment one another. For example, depending on the project you want to develop you may need a designer, someone to take the lead in front-end development and back-end development. Try to minimize surprises on the day of the event and get these logistics squared away!

HELPFUL TIP #1: Do work before the hackathon

If you know you want to develop an app, try to have some ideas of what you want to make beforehand. This will help save time so you and your team can get right down to business. If you want to make an iOS or Android app, it is a good idea to learn the right programming languages beforehand so that you don't spend the whole time watching tutorials online. You can also check out the website of the hackathon for more information about what materials they will provide. They will often have hardware, APIs, and other libraries which are free for hackers!

"Hackathons are a great way for students to gain valuable experience! The most important thing to keep in mind for hackathons is to go in it with some sort of a goal. Examples of goals can be as ambitious as wanting to win a sponsor prize or as simple as wanting to learn how to use React (or any other technologies you might be interested in). I see hackathons as a way to meet new people, learn more about the tech industry as a whole, and most of all just to have fun building something."

-Computer Engineering Student '20

What To Bring

Since hackathons are typically overnight, you want to make sure you are comfortable and have everything you need. Here is a quick list of the essentials.

• Laptop and all chargers

• Brainstorming material (ex. Pencil case and notepad)

• Headphones

• Extension cord

• Water bottle

• Sleeping bag (even if you are going to pull an all-nighter, it is nice to snuggle in your sleeping bag)

• Pillow

• Something to sit on (you will find yourself sitting on the floor wherever you and your team can find space, so a thermarest or cushion is very nice)

• Personal ID

• Toiletries

• Comfortable shoes

• Change of clothes (bring a hoodie and sweatpants to stay comfy and warm)

• Extra Snacks

• (Optional) A nice shirt or outfit for presenting your project to the judges.

During the Event

Overview

The first thing you will do at a hackathon is sign-in at the registration desk. At this point, you will likely receive some free swag, and then you can grab a snack and go to the opening ceremonies.

The opening ceremony is a chance for you to settle in, meet and chat with other hackers and get excited! There will be presentations from some of the sponsors, as well as keynote speakers. Then the organizers will give you a quick rundown of some of the highlights and the agenda of the event.

After the opening ceremonies, people are given time to meet their teams. You and your team will want to find a place to stash your stuff, settle in, and get to work. Try to find a quiet corner or room with few other people. Everyone else will be doing the same thing, so move fast to get a good spot! After this it's time to get to work. There will be time for workshops, organized activities, meals, and of course, hacking.

Hacking

In the preparation section we recommended that you and your team have a general idea of the project you want to work on. However if you're still contemplating ideas, here's some guideline suggestions:

1 Start with a problem and think of how a tech product could solve that problem: programs can be anything from helping someone organize their day to solving a systemic issue.

2 Consider the prize categories and try to customize your program around that.

3 Most winning hackathon ideas work to solve a social issue. Many of these winning products also tend to leverage a "hot" technology, like AI, computer vision etc and it can help if the group members feel a personal connection to the issue that they set out to solve. For example the winning project at SheHacks last year was a mapping tool which provided accessible routes to get around campus.

Remember, all you have to do is make a prototype of your app. It doesn't have to be fully functional since you only have a limited amount of time. There are also many mentors at the hackathon, and they are a great resource. So if you get stuck on your code, feel free to ask one of them! Everyone there is happy to help.

Remember that hackathons can be anywhere from 24 to 48 hours. It is a good idea to take some breaks and check out some workshops. You will also want to get some sleep. You will work much more effectively if you take a couple naps along the way.

Here are a couple ideas to inspire your first hack, courtesy of SheHacks. For all of these, you can add a GUI if you want an added challenge.

- To-do list

- Rock-paper-scissors (against computer or another person)

- Tic Tac Toe

- Calculator

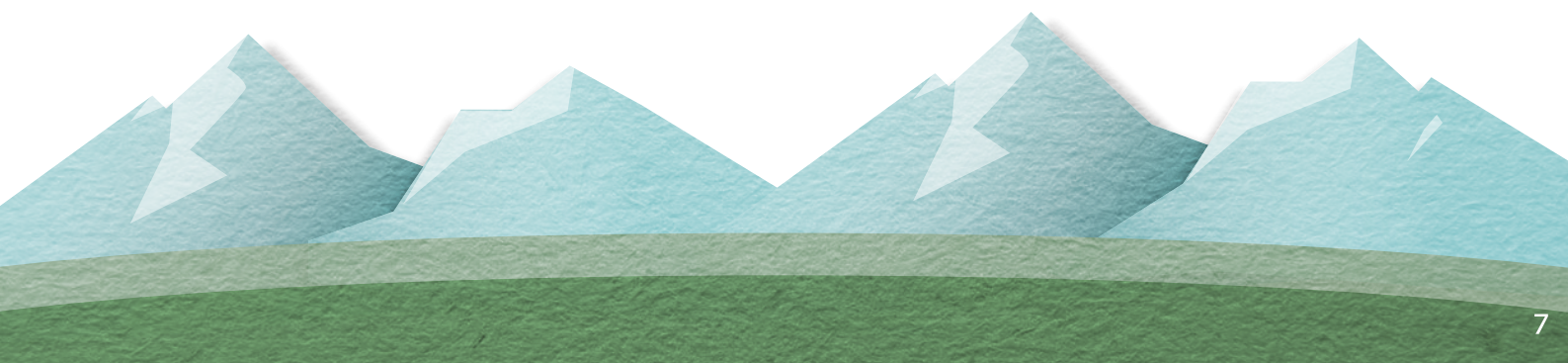- App for taking notes

- Daily planner

HELPFUL TIP #2: Don't take on too much

If you are going to make a program, it is a good idea to use a language you have experience coding in. If it is your first hackathon, start with a simple program like making a to-do list. You don't want to end up so stressed and busy that you don't have time to do other fun things. You will have other hackathons later where you can focus on winning the prizes if you want.

Judging and Submissions

If you and your team feel that you have made a really cool project and want to show it off, you can submit it for the hackathon competition. This is totally optional, and many people will choose to do the hacking without the judging.

Major League Hacking (MLH) is a large company that supports and regulates student-run hackathons. They provide resources and guidelines so that all hackathons they sponsor are structured the same way. This next section will describe the judging process for MLH hackathons. Other private hackathons may do it differently.

Hackers who wish to submit their project for judging must submit it before the deadline, typically through a website like Devpost. Then they are given a time slot during which they present their project to the panel of judges. If there are multiple prizes to be given out, you might have to give your presentation separately to the judges of each award. The presentation is in the form of a pitch and is around 2 minutes, with a short question and answer period at the end. The judges are typically representatives of sponsor companies or developers from the tech industry.

Suggested Pitch Outline

1 Each team member introduces themself.

2 Give a brief summary of the idea and what its purpose is. If you are trying to follow the theme of the hackathon, explain that now.

3 Show the judges your project (remember, it only has to be a prototype!) and give an example of how it works.

4 (Optional) Run through a quick presentation with slides to show what you want the project to look like when finished. This will help the judges understand your idea and motivation.

5 Give a brief explanation of how your program meets the criteria for the award. You should customize this section for each award if you are submitting for multiple.

During your pitch, make sure that everyone on the team speaks. Even if it is only for a sentence, it helps make it a team effort. You should also practice, practice, practice! You only have a couple minutes so you don't want to stumble over your words.

After the judging, everyone will gather for the awards ceremony. Prizes will be given out and it is a good time to reflect on the event as a whole.

HELPFUL TIP #3:

"The best advice I was given was to make the most of the workshops - sometimes there's a lot of pressure to find a group and finish a project, but the workshops are really informative for someone who's too afraid to take on a project yet! Also, a lot of people are typically hacking away so the workshops don't get super full and sometimes you can network with the company reps after."

- Submitted via Facebook

Workshops and Other Activities

Whether you attend the hackathon just for the workshops or if you simply want to take a break from coding, the workshops and activities are always fun! You can expect amazing technical/non-technical workshops that you can attend to learn more about the industry or a particular technology. These sessions are run by the organizers or various third party companies, and include topics about software development, design, and business. Some examples from previous hackathons are learning how to make your first website, tips on getting an internship, or how to make a good resume.
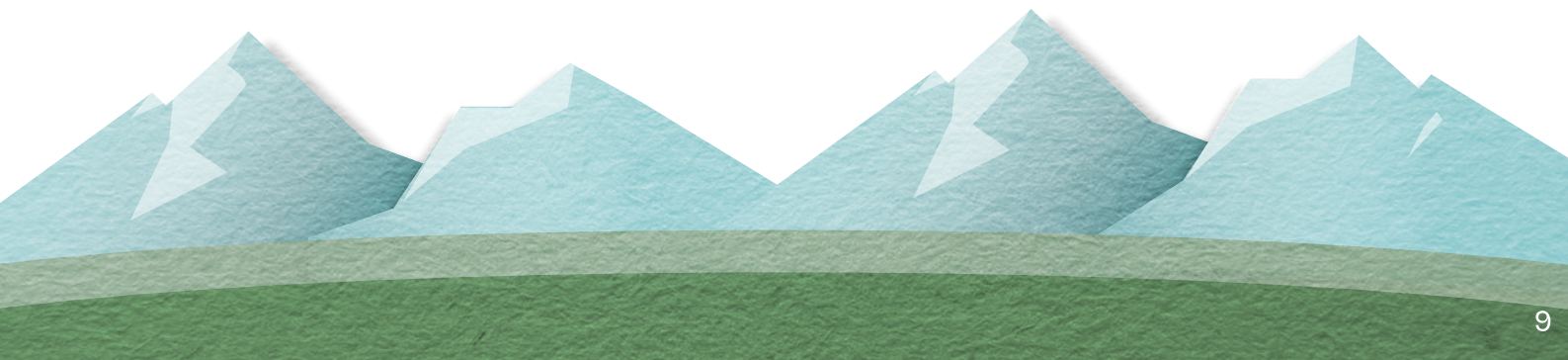
Sponsoring companies also have booths open where you can go talk to people and get free stuff! This is a great way to make contacts in the industry and expand your network. Companies like to send recruiters to hackathons, so make sure to get their card if you are thinking of doing an internship in the future, and add them on LinkedIn.

The organizers typically give out food and have lots of fun activities throughout the night. This can include meeting therapy dogs or making midnight sundaes. Make sure to grab some extra food for your travel home!

HELPFUL TIP #4: Have fun!

"Do the weird activities (like cup stacking and whatever midnight activities are planned). Hackathons are a great place to meet cool people, not just build a project and add it to your resume."

- Computer Science Student '22

After the Event

Once you and your friends have had your first successful hackathon, it's time to go home and catch up on some much needed sleep!

The first thing to do is to congratulate yourself. For a lot of people, hackathons can be very overwhelming, especially if you're new to them. But you made it! Take a minute to congratulate yourself on your success.

Networking

Now is the time for networking. Networking is a dreaded task and can seem super scary. But it doesn't have to be. Here are some tips to get you started.

1   Get a LinkedIn account/profile (if you don't already have one)

2   Post on social media (including LinkedIn) about your time at the hackathon, tagging your teammates and friends.

3   Message the people you met at the event. If you talked with one of the sponsor companies, reach out to that representative on LinkedIn or email. If you got help from someone on your project, thank them and say what a great time you had. If you entered one of the sponsored contests, thank the judge. Small things can go a long way. People will be much more willing to help you find an internship if you send them a little note after the hackathon instead of waiting until you need them. It is also a good way to remember who you met and not forget all the useful contacts you made.

You should also reflect and learn from your experience. Take note of what worked and what didn't. If you went to lots of the workshops, write down what you learned. If you and your team worked on a project, what would you want to do better next time?

Sign up for your next hackathon! Now that you got your feet wet in the world of hackathons, get excited for your next one.