



ExLibris
campusM

Hackathon Kit

Let Students Directly Influence Their University App



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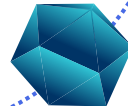
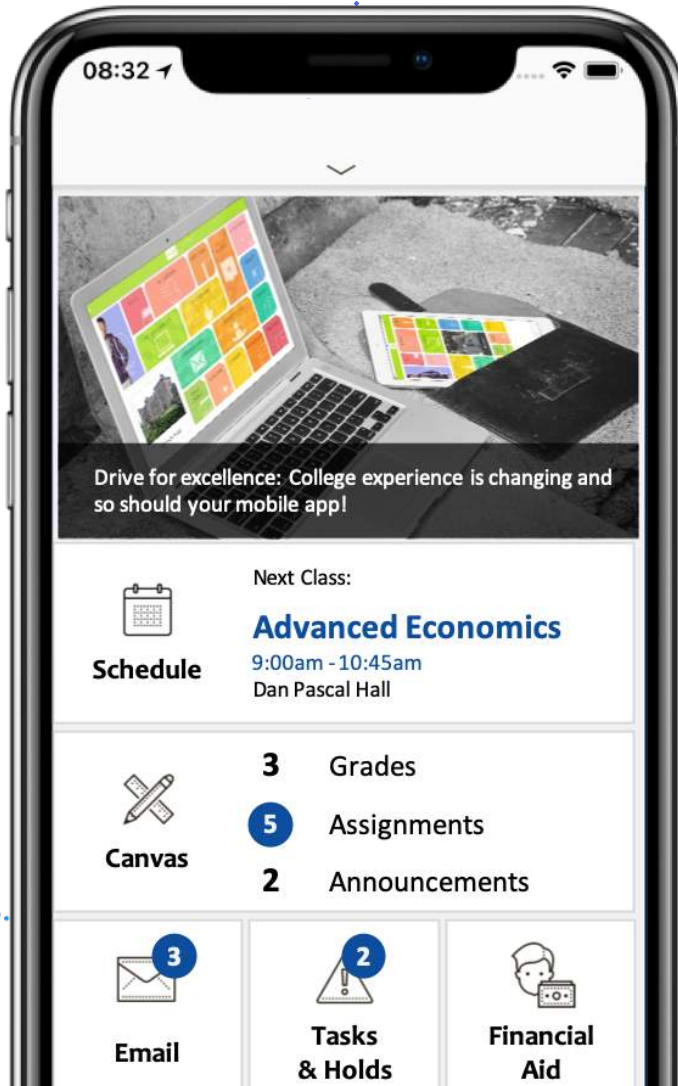
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OVERVIEW



08:32

Next Class:
Advanced Economics
9:00am - 10:45am
Dan Pascal Hall

Schedule

3 Grades
5 Assignments
2 Announcements

Canvas

3 Email
2 Tasks & Holds
Financial Aid



WHAT IS A HACKATHON?

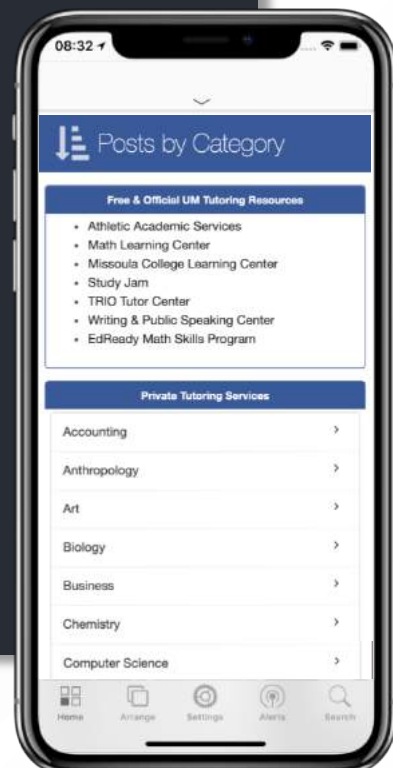
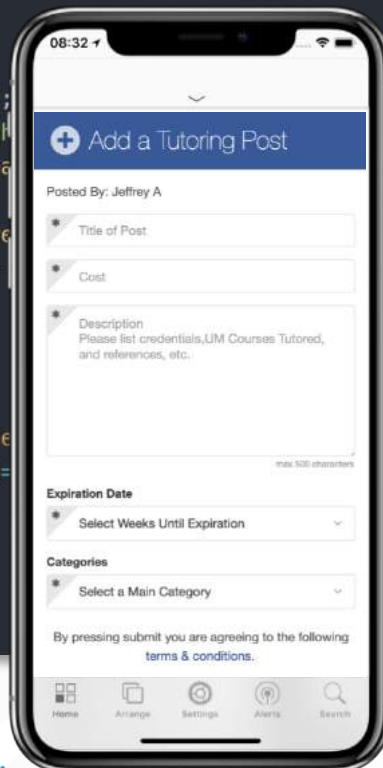
- A hackathon, in this case, refers to a coding competition for the students of the institution. The students will try to create the best new app services. The students will get access to the Application Extension Kit (AEK) and utilize it to develop new services (tiles) on top of the campusM platform.
- In the past, 3 winners have been chosen by a panel of predetermined judges that the institution selects. There is also usually a Student Choice Winner, where the competitors all vote on their favorite project. Winners have typically received some sort of monetary reward that the institution provides.
- Typically, we have seen that the winners of the competition work with the institution's IT team after the event to get the winning services into the institution's official and live Production app.
- The development apps for the competition will only be available through browsers (web). This is because Ex Libris uses HockeyApp for development environments and the process for setting up each competitor with a dev app on their phone is unrealistic. The student projects can still eventually be made available on the native Production app, but for the sake of the competition, students will only have access to the web portion of the app.



WHAT DEVELOPMENT TOOLS WILL BE USED?

- The campusM App Extension Kit (AEK) will be available for agile, in-house development and deployment of new services (aka tiles or screens). Competitors can use the AEK, which is a package built off of ReactJS, to create new services that can be deployed to the app. The AEK adheres to web standards (SOAP, REST, XML, and JSON) when integrating with third-party systems.
- Though not necessary, it will be helpful for competitors to be familiar with ReactJS, which is a JavaScript library.

```
1 import React from "react";
2 import {
3   Container,
4   AekRouter,
5   RouterView
6 } from "@ombiel/aek-lib";
7 import HomePage from "./Home";
8 const router = new AekRouter();
9
10 export default class Screen {
11   componentDidMount() {}
12
13   render() {
14     return (
15       <Container>
16         <RouterView route="/">
17           <HomePage path="/" />
18         </RouterView>
19       </Container>
20     );
21   }
22 }
```





WHY HAVE A HACKATHON?

- Hosting a hackathon will have a multitude of benefits for the institution. Opening up the development tools to the students helps engage them with the institution and allows students to influence the app directly. Who knows what services students need better than students? Allowing them to actually create these services ensures that the new services will be useful and relevant. Along with gaining new services, the institution will gain a strong partnership in Ex Libris. Ex Libris is committed to helping make these events as successful as possible.

Have students create new services for multiple user groups, aka Profiles

Future Student



Current Student



Alumni





THINGS TO CONSIDER

Before you commit to hosting a hackathon, here are some things to consider:

- Cost
- Time to prep (ideally there will be at least 2 months of prep time)
- Time to host the event (typically hackathons take 2-3 days and often continue throughout the night)
- Is there enough institution staff available to hold the event?
- Will there be enough resources around to help the students troubleshoot?
- Will marketing resources be available?
- Will enough students join the event?
- Is there a physical location where this event could be held?



BEST PRACTICES FOR MARKETING THE EVENT

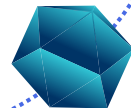
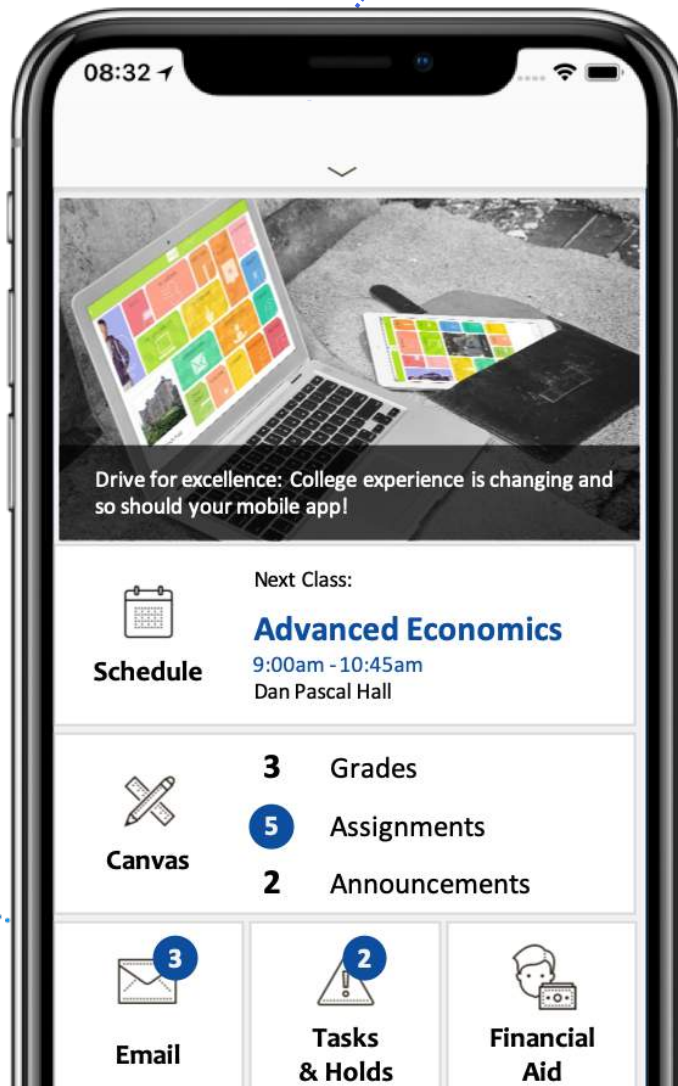
Here are a few of the marketing efforts that we have seen take place:

- Social media (Facebook, Twitter, Instagram, and Snapchat)
- News articles (institution paper and the town paper)
- Posters
- Digital signage
- Have the Computer Science, MIS, etc. departments promote the event (sometimes they offer extra credit as an incentive)

Additional notes:

- Advertise that a background in ReactJS will be helpful
- Start marketing efforts at least a month out
- Have a landing page made that offers registration and the event schedule
- We have seen institution's promote a student internship position in tandem with the Hackathon

TO DO LISTS





INSTITUTION CHECKLIST

To Do - Action Items:

1. Fill out the general background information form (see **Appendix A** at the end of this packet)
2. Define the scope and goal of the hackathon
 - a. Please provide as much detail as possible on what the institution is hoping to get out of the event, e.g. increase in app enrollment, student engagement, student influence, a new athletics tile, etc.
 - b. Defining what the scope should be will help the students decide what they should create. For example, the institution could require that the students have to choose to create their new service from a set of public APIs.
3. Create a grading rubric for the judges to use and for the students to review before they create their projects (see **Appendix B** for an example)
4. Create an agenda for the event
5. Review the Preregistration Kit and send it out to the students (see **Appendix C**)
6. Agree to the requirements in **Appendix D**

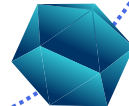
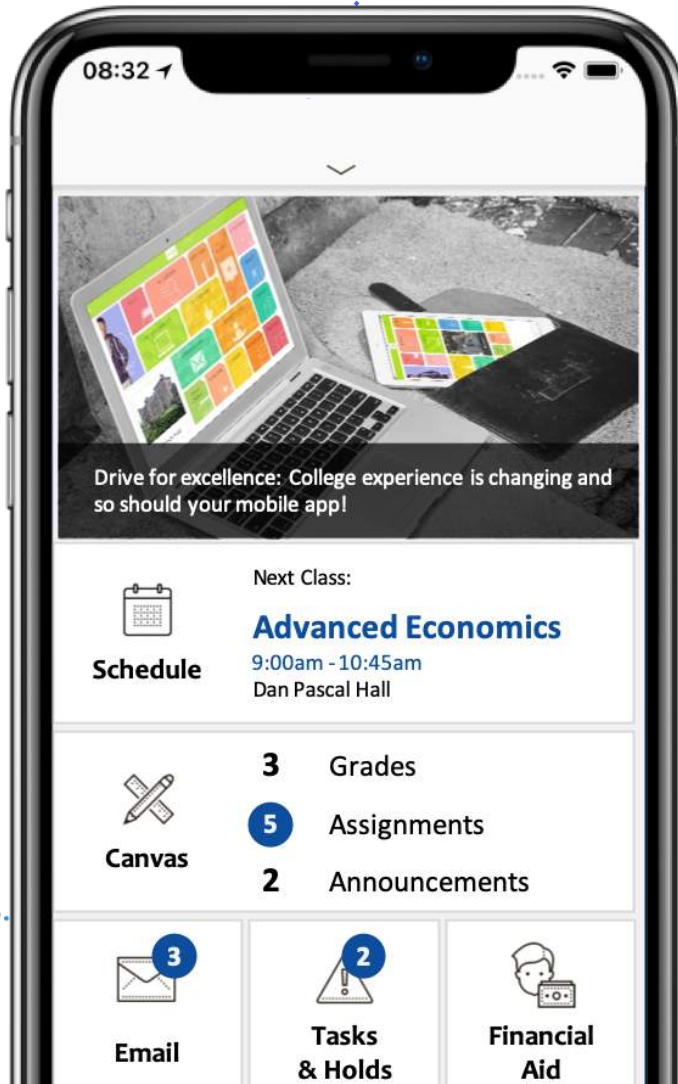


EX LIBRIS CHECKLIST

To Do - Action Items:

1. Create a presentation for the beginning of the event to introduce the tools that the students will be using for the competition
2. Send the institution the list of credentials and app environment(s) that will need to be distributed
 - a. There will be credentials given for the AEK and for the live app. Ex Libris will also provide the URL for the app environment.
 - b. Ex Libris will take care of setting up any relevant account permissions.
3. Setup a baseline app for the competitors
4. Assign an Ex Libris employee (or employees) to help during the event (onsite or virtually)

SUMMARY



Next Class:
Advanced Economics
9:00am - 10:45am
Dan Pascal Hall

Schedule

Canvas

- 3** Grades
- 5** Assignments
- 2** Announcements

Email

Tasks & Holds

Financial Aid



EX LIBRIS OVERVIEW

- Ex Libris, a ProQuest company, is a leading global provider of cloud-based solutions for higher education. With its history of innovation and leadership, a large customer base of over 7,000 institutions worldwide, and its robust cloud infrastructure and operations, the company is well positioned to collaborate with the institution to leverage and extend the campusM mobile technology to provide comprehensive and innovative services to its user community.
- Dedicated to developing the market's most inventive and creative solutions, Ex Libris leads the way in defining and designing efficient, user-friendly products that serve the needs of academic and research institutions today, enabling them to transition into the future.
- Ex Libris caters to institutions of every type and size. Built on open architecture and with support for industry interoperability standards, all Ex Libris products are flexible, customizable, and easy to maintain and manage with full multilingual capabilities.
- By collaborating closely with customers and industry visionaries, Ex Libris addresses the evolving requirements of academic institutions in the high-tech era. Leveraging its leadership position, its understanding of customer needs, and its solution suite, Ex Libris enables academic institutions to maximize productivity and efficiency and, at the same time, greatly enhance the user experience.



CONCLUSION

We are thrilled to have the opportunity to work closely with your institution to help host this hackathon event.

Through our experience in hosting prior hackathons, we believe that students' innovation can take campusM to the next level for the institution. We believe this hackathon can

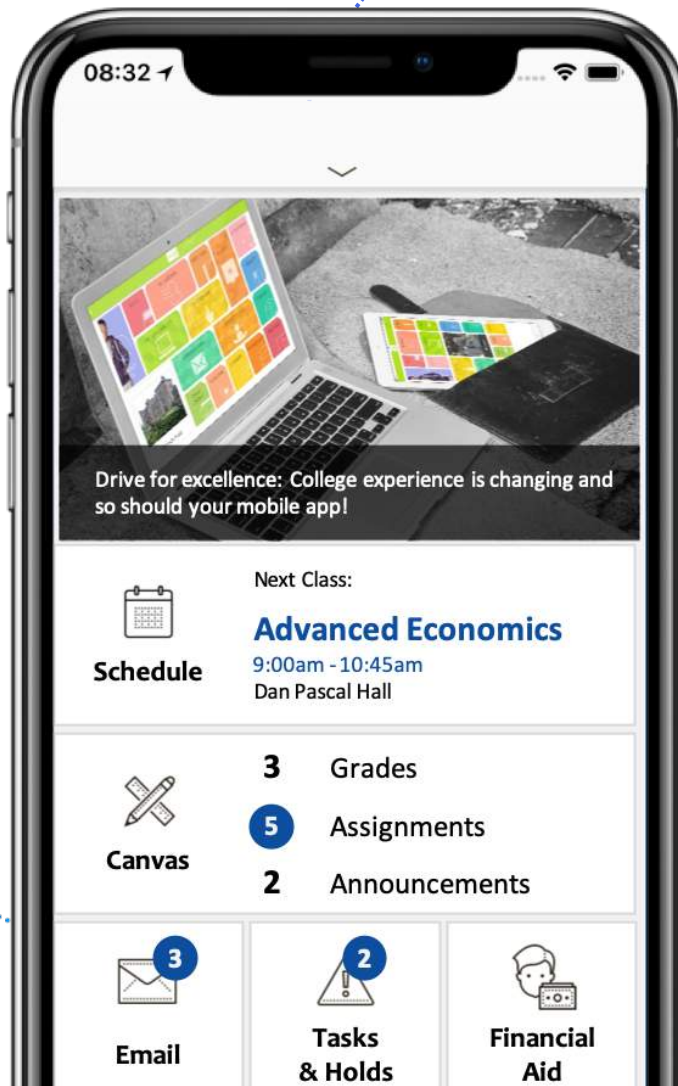
- **Engage students with the institution**
- **Allow students to directly influence the app's services**
- **Strengthen the institution's partnership with Ex Libris**
- **Provide new useful and relevant services to the institution's app**

I would be happy to provide any additional information you may need as you evaluate your options. Please feel free to reach out to me with any questions or comments you may have.

Best regards,
Payton Pietron

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APPENDICES



08:32

Next Class:

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APPENDIX A – General Info

Requested Information	Details
Will food be provided?	
Will there be additional activities for the competitors to take breaks, e.g. movies, games, karaoke, etc.?	
Who will the judges be for the event?	
When/how will the students sign off on allowing the school to use their code?	
Where will the event take place?	
What are the dates of the event? What is the timeframe?	
Who will be able to be onsite to help out at the event from the institution? For a group of around 50 students, it is helpful to have about 1 Ex Libris helper and 2-3 school staff familiar with the AEK.	



APPENDIX A – General Info

Requested Information	Details
What is the plan for marketing the event?	
How many students are expected to attend?	
When and how should the credentials for the AEK and the app be dispersed? If all competitors are supposed to start at the same time, the credentials should be handed out during the day of the event, after teams have been assigned.	
How will registration be handled? Preregistration or day of or both?	
How will check in be handled during the day of the event? Will there be a check in table?	
How will teams be assigned? Will there be a mix of skill levels?	
What is the plan for marketing the event?	



APPENDIX A – General Info

Requested Information	Details
<p>Will teams be assigned designated work areas? This is helpful so you know where everyone is.</p>	
<p>What room is available for everyone to meet in? Can areas be clearly marked for teams to congregate to?</p>	
<p>What public APIs, if any, will you be providing for the competitors?</p>	
<p>Do students need to bring their own gear (laptops, phones, etc.)? Will there be any devices provided by the school for use?</p>	
<p>How many competitors do you expect to have? We need this number to make sure we have prepared enough user accounts. If you are unsure how many will attend, Ex Libris needs the maximum number of competitors there could be.</p>	



APPENDIX A – General Info

Requested Information	Details
<p>How will questions during the event be handled? A designated room works best, with virtual support available as well.</p>	
<p>Do you want to make it a requirement to participate that you must have all the needed software installed before the event? Installation is usually the biggest hang up that students have.</p>	
<p>Will you be able to set up something like Slack for communication and assistance during the event? This is highly encouraged.</p>	
<p>Do you have any student developer positions available that use the AEK?</p>	
<p>How will you collect the students' source code at the end of the competition? GitHub is one suggestion.</p>	



APPENDIX A – General Info

Requested Information	Details
<p>Besides source code, are any other deliverables expected from the students? For example, you might require the teams to submit a one page description of their project(s) or a presentation.</p>	
<p>At the end of the competition, teams are typically required to complete a short presentation explaining their project idea and execution. Will you require teams to do this? How long will the presentation be? 2-5 minutes is suggested.</p>	
<p>Can you provide the competitors with a list of services already available within your institution's app so they do not duplicate efforts?</p>	
<p>Do you want to require that the institution's app must be downloaded as part of registration?</p>	



APPENDIX B – EXAMPLE GRADING RUBERIC

Requirement	Scale 1 - 10
<p>Impact</p> <ul style="list-style-type: none"> • What impact does the project have? • Does it impact a number of users? For example, a prospects tile might be less impactful than one for the entire student body. • Does it solve a problem? What is the problem? • Does it help students succeed in their day to day activities? • Does it improve a daily time consuming task? 	
<p>Innovation / Creativity</p> <ul style="list-style-type: none"> • Is the idea new, unique, ambitious, creative? • Does it provide a fresh or better approach to solving an old problem? 	
<p>Technical Strength</p> <ul style="list-style-type: none"> • Is the project technically interesting or advanced? 	
<p>Viability / Feasibility</p> <ul style="list-style-type: none"> • Is it realistic to further develop the project at a reasonable cost / timeframe? • Is it an ambitious project, but with a good go to market plan of milestones and resources and a well defined scope for a minimum viable product? 	
<p>User Interface / User Experience</p> <ul style="list-style-type: none"> • Is the project designed well? • Does it have a good user experience? 	



APPENDIX C – PREREGISTRATION KIT

Installation Details:

- The installation instructions can be found here:
- <https://npm.campusm.net/-/docs/@ombiel/aek-cli/1.0.5/pages/20-installation/10-installation-details>
- Please ignore “App Manager Accounts” section as it is not relevant to this hackathon. Also, please only use this page for installation instructions.

Create an AEK Project:

- Install a text editor of your choice (Atom is suggested)
- Open the AEK Registry (<https://npm.campusm.net/>) and test that your credentials work
- Test your installation
 - Simply run **aek** at the command line. You should see the AEK command menu.
- Create your first AEK project
 - Create a suitable directory in your filesystem to house your AEK projects and navigate to that directory from the command line, demonstrated here:

```
mkdir ~/my-aek-projects
```

```
cd ~/my-aek-projects
```

- Now execute the **create** command to create your first project:

```
aek create
```



APPENDIX C – PREREGISTRATION KIT

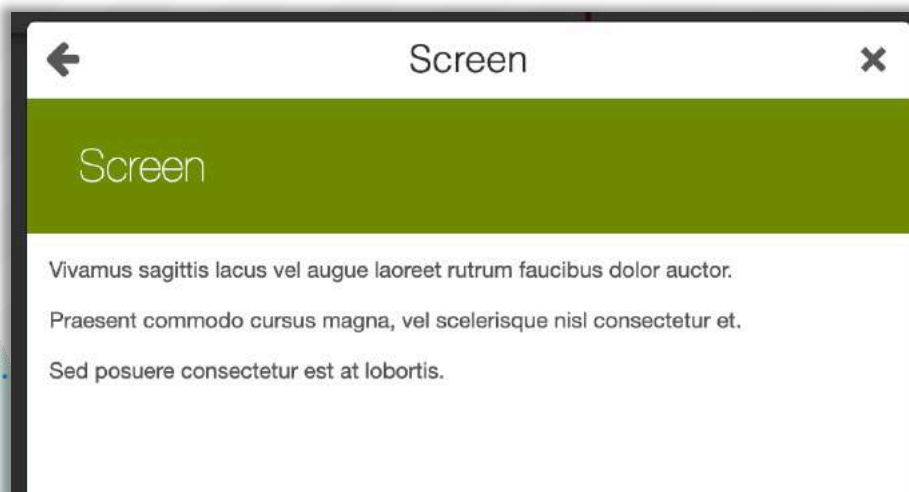
You will need to answer the prompts provided with details like the package name and the hostname for the app you want to proxy, etc. The package name must be at least 6 letters and you can only use lowercase characters, hyphens, or numbers. Please select the "New (React 16)" boilerplate. You may also need to login with your assigned credentials.

Once you have completed all the prompts, the most recent version of the boilerplate should begin to download, and all the required dependencies will be installed locally to that project. When this has completed, you can navigate to the project and start it up:

```
cd my-new-project
```

```
apk start
```

This will startup a local server on port 5000. Open up your favorite browser and enter the address <http://localhost:5000>. A basic project should look like this in your browser:





APPENDIX C – PREREGISTRATION KIT

Open your project in your favorite editor and begin to make changes. If you would like additional information on how the boilerplate is structured, click here:

<https://npm.campusm.net/-/docs/@ombiel/exlib-boilerplate-aek-react/0.2.12/>

Read the library documentation: Most of the library code is contained in the aek-lib package and has its own documentation:

<https://npm.campusm.net/-/docs/@ombiel/aek-lib/1.1.3/>

Deploy your project to the app: You will need to deploy your project so it can be made available within the app. Once you have done some testing on your project locally, you can deploy it to the live app environment with the following command:

```
cd my-new-project
```

```
aek deploy -n
```

Next, alert the Ex Libris employee that you have deployed your project to the app environment. At this point, the Ex Libris employee will do the rest of the configuration to get your project to appear within the live app. They will notify you once this is done.

Once the AEK project has been published, any additional deployments should show up automatically in the live app.



APPENDIX C – PREREGISTRATION KIT

Important Links:

Please note, you will need credentials to log in to the AEK Registry and to start your AEK project from the command line. Account logins will be given out during the day of the event.

- AEK Registry (library info, etc.): <https://npm.campusm.net/>
- App URL: This will be given during the day of the event
- Developer Network:
 - Example Projects: <https://github.com/ExLibrisGroup/campusm-aeik>
 - Blogs: <https://developers.exlibrisgroup.com/blog/?search=campusm>
- General React Documentation: <https://reactjs.org/>



APPENDIX D

Ex Libris is happy to partner with your institution to help host this hackathon event. In return, Ex Libris asks that the institution be willing to:

- Grant Ex Libris permission to show off the institution's live app to prospects (this will require credentials to a test student account)
- Allow Ex Libris to use the institution as a reference
- Allow Ex Libris to generate marketing collateral, e.g. case studies, promotions, pictures, videos, blogs, etc.
- Join Ex Libris for presentations at conference and events