Pre-Brief Hackathon Pack

Saturday 12th December @ 9.00am

TechCity UK, 10 Finsbury Square London, EC2A 1AF

DAY PLAN

Saturday 12th December 2015

09.00-09.30: Registration and breakfast
09.30-09.40: Introduction and Briefings, General Housekeeping
09.40-10.00: Opening Keynote
10.00-10.15: Network and make your teams
10:15: Review your brief pack and work on your concepts

11:30: Pitch to Panel - Best 3 ideas in 8 mins
12.10-12.15: Panel feedback - iDEA to develop
12:15: Develop your wiki lesson plan
12.30–1.30: Working Lunch

13.45–14.00: Ninety second shout-out: say what you hope to build; how you're going to do it;

14.00 onwards: Wireframes and Coding your "Online Badge Challenge" - dev and design work!

19.00: Plan your continued development/involvement with your team
19.20–19.35: Ninety second shout-out: say where you got to and where you're going
19:45: Roundup - next get together and thank you
20:00: Depart

Review Brief → Make Teams → Brainstorm → Validate ideas to panel → Lesson Content → Wireframes → App Development

SUGGESTED TEAM STRUCTURE

1 x Team Mentor
1-2 x Creative, Business Development, Digital Maker, Hacker, Engineer
1 x Teacher
1-2 x UI/UX Developers
1-2 x Graphic Designers
1-2 x PHP Full Stack Developers

HACKATHON SUMMARY

Overview

The aim of the hackathon is to develop exciting creative digital badge concepts. Teams should consider all aspects of the user's digital badge experience, using your skills in UI/UX, business, education, graphic design, coding, development and problem solving. By the end of the day we expect you to have identified and mapped out how to convert your badge concept into a digital badge and you will then have just over five weeks to turn this into a real badge.

Bronze Award – The Hackathon focuses on Bronze level.

The bronze award is made up of *digital citizen, worker, maker, gamer and independent badges*. Each of these badges fall into *3 complexity levels awarding 10, 20 and 30* points depending on time taken to complete the task. The bronze award is primarily aimed at *key stage 3* (11 to 14 years old), but can be taken by anyone who wants to do the challenges.

A bronze award is given to the learner when a points total has been achieved and all skills have been covered.

What we would like you to do

Our full briefing pack (provided on the day) gives further background information on the badges and awards, examples of different badge types and potential content. You can choose to use some, any or all of this material, or indeed come up with your own badge concepts linked to these areas.
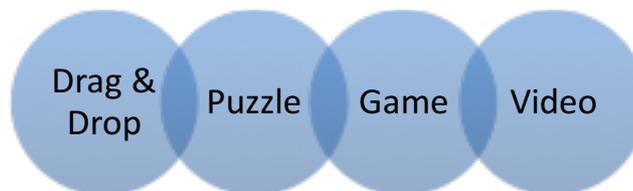
You will then be required to collate and present the badge concepts for your team, before planning and developing one of these concepts further to a stage where you can build the badge between the end of the hackathon and the deadline for badge submissions.

On the day we will help you set up your teams and provide further information and content as required to support you with your badge concepts. We are looking for teams to focus on a range of badge experiences and categories and so some negotiation will be required regarding exactly which badge concepts you pursue in your team.

Badge Experience

There are different ways in which badges can be presented in a fun and engaging way, for example through drag and drop, puzzle/game elements and using video. There are also different ways in which badges can operate within the badge platform. One option is an **internal badge**, where users

interact with the content entirely within the **widget** you have created and the result (pass/fail) is then sent back to the platform at the end of the badge. Another option is an **external badge**, where users are required to engage with activities "off-site". This could be through completing activities on another website or collecting evidence which they then submit for checking. For external badges the user experience and coherence may be more challenging but also potentially richer.

*The final output is a **web based widget** that can assess the learning criteria you have created.*

Development Tools

To build your interactive badge you can use a range of libraries and tools but we would like to keep them centred around this simple stack:

Bootstrap
HTML 5 / CSS 3
PHP / MySQL – if server side tools required

Because the requirements can be as complicated or as simple as you like even a basic knowledge of these skills should be enough.

Your Badge Product

Your badge output will be a simple **stand alone web widget** that can sit in the directory of an apache web server (running php) and makes simple ajax API calls to get the students name, id and pass back course status and completion.

POTENTIAL BADGE CONTENT AREAS

Badges can be created to cover any area which helps make young people more employable and better able to work in the digital economy. A wide range of areas are already identified through educational curricula which provide a broad and varied set of areas for developing badges and these can be added to with any suitable additional subjects. For reference the curriculum areas are listed below.

Our Hackathon is based on the Bronze award badge - Bronze Award Badge Areas (Key Stage 3, 11-14 year olds)

1. Introducing algorithms
2. Basic coding
3. Digital devices
4. Hardware
5. Software
6. Systems and control
7. Binary and boolean logic
8. Computational abstractions
9. Recognising/using data
10. Organising digital content
11. Creating digital content – word processing
12. Creating digital content spreadsheets
13. Creating digital content – presentations
14. Operating systems and applications
15. Blogging
16. Complex data management and evaluation
17. Graphical manipulation
18. Online safety
19. Digital reputation
20. Social media
21. Sharing and collaboration
22. Awareness (Quality and judgements of digital content)
23. Online etiquette
24. Responsible use of the WWW.

25. Ethical, moral and economic use of technology

SOME WORKING EXAMPLES - HACKATHON TASKS

Below are some example tasks that could be built into badges. Supporting content and details for these badge tasks are in the case study document.

Digital Citizen Task

A digital citizen approach to social media. Understanding the range of ways in which we use technology safely, respectfully, responsibly and securely including protecting online identity and privacy whilst recognising appropriate content, contact and conduct.

Consider also: -
- online safety
- digital reputation
- online etiquette and awareness
- responsible use of the Internet
- ethical, moral and economic use of technology
- consider online privacy and identity
- technological impact on society
- social media for enterprise.

Digital Worker Task

A digital worker approach to collaboration. Understand the importance of communication, collaboration and sharing. You will also develop an awareness of the different digital collaboration methods available and become familiar with the terms, 'Corporate Social Responsibility' and philanthropy in business.

Consider also:

- Collaborative content creation (e.g. document sharing / collaborative tools)
- Communication within teams using digital tools
- Collaboration skills needed for 'Corporate Social Responsibility'

Digital Maker Task

A digital maker approach to coding. An introduction to coding that will reflect computational thinking, using logical reasoning through the use of software and hardware components which make up computer systems. The learner will make use of data structures through the design and development of a modular program that uses procedures or functions.

Consider also: -

- Algorithms
- Basic coding
- Digital devices
- Hardware
- Software
- Binary and Boolean logic
- Computational abstractions
- Operating systems and applications

Digital Gamer Task

A 'digital gamer' badge is exactly what it says on the tin. This badge is only made available when a user completes a section or award and is used as an incentive to inspire further badge take-up. The digital gamer badge can incorporate programming, illustration or storytelling tasks. The user will submit details supporting their digital gaming solution. These badges are an introduction to the gaming world, storytelling, artwork, coding and much more.