



Mobile Applications

Ronan Smith, Heriot-Watt University



Shazam

- An app that listens to a song and tells you about it.
 - Name, artist, album, release date, ...
- The first British app to be valued at more than \$1 billion! [1]
- A simple idea -> a very useful app.



Apps and Smartphones

- First smartphone – IBM Simon (1993) [2].
- The iPhone (2007) – changed the way we think about mobile phones.
- Instead of being simple communication devices, they became very powerful general purpose computers.
- The iPhone allowed apps to be created separate from the phone itself and downloaded by only people who need it.
- Apps essentially give you the ability to do almost anything you want on a mobile phone.
 - iPhone 2009 advert - “There’s an app for that!” [3]



What makes mobile apps so great?

- Externally made – don't eat up memory on your phone.
- Multi purpose – an app can be created for almost any purpose.
- Simple – often the simplest ideas lead to the best apps.
- Small – can literally be held in your hand which can be satisfying.
- Quick – easy to access them quickly without having to wait for them to load. Easy to switch between apps.

Operating Systems

- The look and feel of your mobile phone on the screen.
- Can anyone tell me the three main ones?
 - iOS (Apple),
 - Android (Google),
 - Windows (Microsoft)
- We will be making Android/iOS apps using Thunkable.



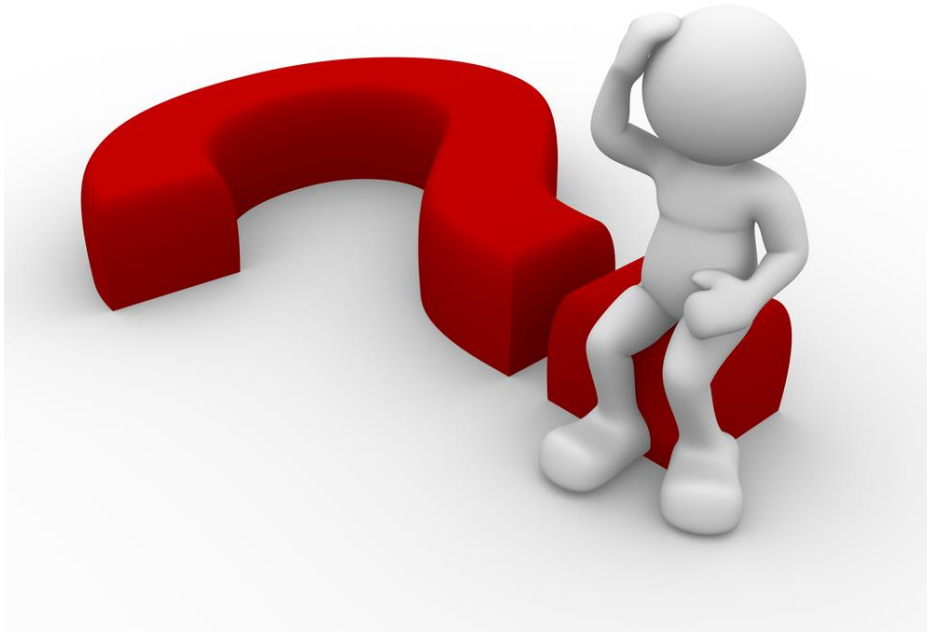
~~MIT App Inventor~~ Thunkable

- <https://thunkable.com/> - or Google 'Thunkable'.
- Block programming – similar to Scratch.
- Different views for user interface and program – similar to Visual Basic.
- You must have a Google account to log in.
- Originally planned on using MIT App Inventor, so you may need to use your problem solving skills to work out parts of the worksheets.

What I'd like you to do!

- Worksheet 1: Work through the 3 App Inventor tutorials [5].
 - 'TalkToMe' (iOS)
 - 'BouncingBall' (Android)
 - 'PaintCanvas' (Android)
- Worksheet 2: Extend each tutorial task in your own way.
- Worksheet 3: Create your own app!
 - Think of something you think would be useful and make it!

Questions?



Aims and Objectives

- Gain a basic understanding of how mobile apps can be created on Thunkable using block programming.
- Understand more about why mobile apps are useful.
- Create some small apps.
- Come up with your own ideas and create them!

References

1. Cellan-Jones, R. (2015). *Shazam – a billion dollar London Success* [online]. Available from <http://www.bbc.co.uk/news/technology-30917477> [Last Accessed 3rd January 2018].
2. Rajpoot, M. (2015). *Tracing the History and Evolution of Mobile Apps* [online] Available from <https://tech.co/mobile-app-history-evolution-2015-11> [Last Accessed 3rd January 2018].
3. Youtube.com (2009). *iPhone 3g Commercial “There's An App For That”* [online]. Available from <https://www.youtube.com/watch?v=-sncCSbPIUw> [Last Accessed 3rd January 2018].
4. MIT APP INVENTOR. Available from <http://ai2.appinventor.mit.edu> [Last accessed 16th January 2018].
5. App Inventor Tutorials. Available from <http://appinventor.mit.edu/explore/ai2/beginner-videos.html> [Last accessed 20th January 2018].