



# Cambridge TECHNICALS in IT



## Unit 10: Developing Computer Games

LO 3: Be able to design and develop computer games.



# Brief



- Hartsdown Technology College would like a mobile, location-based game aimed at new Year 7 students that will enable them to explore the school and help find their way around.



# Specification



- MoSCoW Rules for writing a specification.

- Must Haves

- List all of the requirements that must be included in your program.

- Should Haves

- List the features that you would ideally like the program to include.

- Could Haves

- List the features you feel it would be good to include in your program if there were no time or knowledge constraints.

- Won't Haves

- List features which you will definitely not include in your program.





# Design Tools



- Storyboarding
- Mind Maps
- Narrative



# Data Dictionary



- You will need to list all the data that needs storing in your game. This is done using a table like this:

Variable Name	Data Type	Description
strName	String	Used to store players name.
intTotalScore	Integer	Used to store the total score for the current player.



# Platforms



- Mobile
- PC
- Game consoles



# Interfaces



- Game controller
- Touch screen
- Mouse
- Keyboard





# Possible Expansions/Repurposing



- Add-ons to make more revenue
- Additional levels
- Other challenges





# Development



- Language
- Compiling code
- User interface elements:
  - Option menus
  - Puzzles
  - Help facilities
  - Collisions
- Artificial Intelligence





# L03 Portfolio Evidence



## ✓ (P3) Computer Game Design

- Identify the purpose of the game (this should include the rules, players and overall storyline for the game.)
- Produce a game specification.
- Create a Storyboard for the game (you should identify different levels within this)
- Create a data dictionary to identify data that will be stored.

## ✓ (M3) Expansion Capacity

- Describe ideas of how your game could include downloadable expansion packs.
- Explain how this will add playability to the game and why a player would want to download or use these expansions.

## ✓ (P4) Develop a Computer Game

- Create a working game (to include multiple levels).
- Produce annotated screenshots to demonstrate how the game works.
- Annotate and print the program code

