

Computing Year 8 Unit: Mobile App Development

Threshold concept—

- Identify when a problem needs to be broken down
- Identify when there are issues with code
- Use block-based programming to a basic level

Keyword	Definition
Sequence	Placing a set of instructions in an order
Event	An action that occurs as a result of the user
GUI	A visual way of interacting with a computer
Programming	The process or activity of writing computer programs.
Decomposition	When we break a problem or task down into smaller parts to make it easier to tackle
Abstraction	The process of filtering out - ignoring - the characteristics of patterns that we don't need in order to concentrate on those that
Algorithmic thinking	A way of getting to a solution through the clear definition of the steps needed
Variables	Value that can change, depending on conditions or on information passed to the program
Selection	Selection is a decision or question.
Operators	+, -, *, / =, =>, =

DECOMPOSITION

Breaking down a problem into smaller chunks. This makes it more manageable and easier to understand.

1

PATTERN RECOGNITION

Looking carefully in lines of code for patterns, similarities and trends.

2

ABSTRACTION

Filtering out and focusing on what is important. Ignoring what is not important.

3

ALGORITHM DESIGN

A plan and step by step instructions on how to solve the problems.

4

DEBUGGING

Looking through your program to find errors and then fixing them.

5

USER INPUT

Text boxes – allowing the user to input a string.

Checkboxes - allowing for the user to indicate a yes or no response.

Button – linked to an event that will capture and process the data when it is clicked

EVENT HANDLER

You can use an **event handler** to determine when to collect the data and what to do with it once it has been collected and linked with a variable.

```
onEvent(▼"login", ▼"click", function() {
  var username = getText(▼"username");
});
```

GETTEXT

getText ("id") is a built-in subroutine that collects the text entered into a textbox; "id" is to be replaced with the name given to the text box.

```
var x = getText(▼"id");
```

SELECTION – BOOLEAN LOGIC (IF/ELSE/ELIF)

Selection is the process of making a **decision** based on a **condition**. Selection allows you to add more avenues and routes to your coding.

```
if (score > 10) {
  setText(▼"feedback_label", "Great Work");
} else if (score > 6) {
  setText(▼"feedback_label", "Not Bad");
} else {
  setText(▼"feedback_label", "Hard Luck");
}
```