# **CS1701 Level 1 Group Project**

# **Formative Task**

# **Assignment 0**

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## **Requirement Specification**

1. The colour of the LED in the beak of each of the four finches should be set to a different colour (that is, red, green, blue, and yellow).
2. In the first round, the program should generate a colour randomly (red, green, blue, or yellow) and display it to the user by blinking (flashing on and off) or flickering the beak of the corresponding finch.
3. The user should attempt to repeat this colour by tapping the corresponding finch.
4. The program should compare the user’s input with the correct colour.
5. If the user input is correct, in the second round, the program should display a sequence of two colours: the first colour plus another randomly generated colour. In the third round, the program should display a sequence of three colours: the previous two colours plus another randomly generated colour. That is, after each round, the program should add one colour to the previous sequence.
6. If the user input is not correct, the program should output (speak or print) ‘Game Over’, produce an awful sound, and the program terminates.
7. Use a fifth robot as an ON/OFF button. That is, the game is ON as long as the fifth finch is not with its beak up. The user can quit or ‘switch off’ the game by placing the fifth finch beak up.
8. The program should give the user a visual indication of their input.
9. The user’s score should be tracked and displayed.
10. The highest score should be stored.
11. Give the user a visual and audial output when they achieve the highest score.