Assignment 2: Introduction to Programming with MakeCode Microbit

Module 2: Basic Building and Programming

Due Date: See Teams

Objective:

In this assignment, you will explore basic programming using the MakeCode platform and the Microbit. This will help you develop foundational coding skills through hands-on activities.

Part 1: MakeCode Microbit Basics (Python)

1. Tutorials:

Go to **MakeCode Microbit** and complete the following tutorials in Python:

- **Name Tag** – Program your Microbit to display your name or a custom message.
- **Dice Roller** – Create a virtual dice that rolls a random number when shaken.

2. Insert Your Code:

After completing each tutorial, take a screenshot of your Python code and insert it into the table below.

Tutorial	Python Code (Screenshot)
Name Tag	Insert your Name Tag code here
Dice Roller	Insert your Dice Roller code here

3. Reflection:

After completing the tutorials, write a brief reflection (around **100 words**) about what you found easy or difficult when getting started with MakeCode Microbit.

4. Board Game Activity:

Once you have completed the **Dice Roller** tutorial, you can use your programmed dice to play a board game of your choice! Feel free to **modify (rig) your dice** if you'd like to experiment with probabilities and outcomes.

Grading Criteria:

Criteria	4 - Excellent	3 - Good	2 - Satisfactory	1 - Needs Improvement
Completion of Tutorials	Completed both tutorials with correct Python code.	Completed both tutorials with minor errors in code.	Completed one tutorial or both with some errors.	Did not complete tutorials or contains major errors.
Code Functionality	Code is fully functional and meets all requirements.	Code is mostly functional with minor issues.	Code is partially functional but missing some parts.	Code is not functional or incomplete.
Reflection Quality	Thoughtful reflection demonstrating clear insights.	Reflection is clear but lacks some depth.	Reflection is basic and missing key insights.	Reflection is incomplete or unclear.
Board Game Activity	Used the dice in a game and provided a creative modification.	Played a game using the dice but no modifications.	Completed the tutorial but did not use the dice in a game.	Did not complete the dice roller tutorial.