Programming Task (Scratch): Diamond Hunt

You are part of a team making a game called **Diamond Hunt**. Other programmers on your team have started the game and you have been tasked with completing it.

You need to add the following features to the game:

- When the game starts the miner should say "I'm going to be rich!"

- When a diamond is touched by the miner it should disappear.

- When a diamond is touched the diamonds collected count should go up by one.

- When the miner has collected 5 diamonds he should say "I Win" for a second then the game should stop.

- A monster should chase the miner.

- When the monster touches the miner it should say "Game Over!" and stop the game.

Where you are asked to give evidence of your program you should print out or produce a screenshot of your program. You should check your program works at every stage but only need to give proof of testing in section (f). You should ensure you use appropriate commenting in your code.

Open up `Diamond Hunt.sb` and take a quick look through the existing code. All your code will be added to this file.

(a)   Make a list what your game needs to be able to do. Plan the parts of the game you are going to make. (You can use flowcharts, pseudo code or any other sensible method of showing how your program will work.)

(b)   Add code to the Miner sprite so when the green flag is pressed the Miner says "I'm going to be rich!" for 1 second.

Test your program works then give evidence of your code.

(c)   Add to the code for the diamond sprite so it hides if it touches the miner. (There is already code for it to reappear when it moves.) The variable *diamond* should increase by one.

Test your program works then give evidence of your code.

(d)   Add a sprite of your choice and call it *monster*. The monster should chase the miner. It will do this by pointing towards the miner and moving one step. It should repeat this process until it is touching the Miner.

Test your program works then give evidence of your code.

(e)   Add code to your monster so when it is touching the miner it says game over and stops all the scripts.

Test your program works then give evidence of your code.

(f)   Add code to the blocks you used in (b) so that after the Miner has said "I'm going to be rich" that part of the program waits until 5 diamonds have been collected. The Miner then should say "I win" for one second before the program stops.

(g)   Test your program works. Make notes on how you tested it and what you found out.

(h)   Write an evaluation of how well your game works. You should include:

- Any problems you had making it and how you overcame them.

- Any bugs your program still has.

- Any future improvements that could be made to your program.