Coding Challenge

Topic: Values, Variables, and Expressions

Assignment Instructions

Write a program that calculates the area of a triangle using the try-except statement and the following formula:

```
Area = 1/2 × base × height
```

Your program should prompt the user to enter the base and height of the triangle as input, and then it should calculate and display the area.

In [1]:
```python
## GRADED PROGRAM: Calculate the area of a triangle

def calculate_triangle_area():
    # your code here
    try:
        # Prompt the user to enter the triangle's base and height and convert to
        base = float(input("Enter the base of the triangle: "))
        height = float(input("Enter the height of the triangle: "))

        # Check if both the `base` and `height` variables are valid inputs
        if base <= 0 or height <= 0:
            print("Error: Both base and height must be positive numbers.")
        else:
            # Calculate the area of the triangle and store this into an 'area' v
            area = 1/2 * base * height

            # Display the final result to the user
            print(f"The area of the triangle with base {base} and height {height
    except ValueError:
        print("Error: Please enter valid numerical values for base and height.")
```

In [2]:
```python
# UNGRADED TEST: Test your program prior to submitting
calculate_triangle_area()
```

```
The area of the triangle with base 10.0 and height 10.0 is: 50.0
```

In [ ]: