ASSIGNMENT 5:

WRITE A PROGRAM THAT HANDLES EXCEPTIONS BY

USING TRY, CATCH, AND FINALLY BLOCKS

Requirement:

Write a python program that prompts the user to input a number.

Attempt to divide a fixed number (e.g., 10) by the user-provided number.

Use try, catch, and finally blocks to handle any potential exceptions (e.g., division by

zero).

Print appropriate messages in the catch block for exceptions.

Ensure the finally block is executed to perform any cleanup operations (e.g., closing

resources).

Code:

```python
def divide_number():

    fixed_number = 10


    try:

        user_input = int(input("Enter a number to divide {} by: ".format(fixed_number)))

        result = fixed_number / user_input

        print(f"The result of {fixed_number} / {user_input} is {result}")


    except ZeroDivisionError:

        print("Error: Cannot divide by zero. Please enter a non-zero number.")


    except ValueError:

        print("Error: Invalid input. Please enter a valid integer.")


    except Exception as e:
```

```python
        print(f"An unexpected error occurred: {e}")

    finally:

        print("Execution of the division operation is complete.")


# Example usage
if __name__ == "__main__":

    divide_number()
```