

AIM: To write a Python program that accepts an integer input from the user, using exception handling to manage invalid (non-integer) inputs, and continues prompting until a valid integer is entered.

HARDWARE & SOFTWARE REQUIREMENTS: Hardware: 16GB RAM, Intel Processor(i9), Software: Python (Version 3.x), Google Colab (Cloud-based)

SYSTEM CONFIGURATION: Operating System: Windows 11, IDE: Google Colab

THEORY: Exception handling in Python is managed using the try, except, and optionally finally blocks. When the code inside the try block raises an error (an "exception"), the program control moves to the except block. This helps prevent program crashes due to invalid inputs or unexpected errors.

In this program, we use exception handling to manage the scenario where a user enters a non-integer value (like a string or float) when an integer is expected. The ValueError is caught, and the user is prompted again until a valid integer is entered.

REFERENCES: Geeks for Geeks, Python Documentation: <https://docs.python.org/3/>

1) Write a program that receives an integer as input. If a string is entered instead of an integer, then report an error and give another chance to user to enter an integer. Continue this process till correct input is supplied.

```
while True:
    try:
        number = int(input("Enter an integer: "))
        print("You entered the integer:", number)
        break
    except ValueError:
        print("Invalid input! Please enter a valid integer.")
```

```
➞ Enter an integer: 6
   You entered the integer: 6
```