

Anderson - ICE

Problem

Using Recursion; take two numbers in from the user (a human) and add them together then separate the least significant digit and add it the remaining digits and so on until you have a single digit answer.

a. EX: $87345 \Rightarrow 8734+5=8739 \Rightarrow 873+9=882 \Rightarrow 88+2=90 \Rightarrow 9+0=9$

Requirements

- Input sanitation/validation from the user
- The process of separating the digits and summing them must be implemented using recursion
- Output must be a single digit (integer)

Assumptions

- Non-negative integers only (negative numbers \rightarrow absolute value will be used)
- The recursion stops when the number of digits equals 1
- Input has no leading zeros
- The user should be prompted to enter new numbers each time they enter an invalid input

Design

