1. **Scenario:** You are developing a banking application that categorizes transactions based on the amount entered.  
    Write logic to determine whether the amount is positive, negative, or zero.

**Ramishahope Artificial Intelligence Pvt Ltd**

**36, Old Anandas, SG Arcade, Marudhamalai Main Road, Vadavalli, Coimbatore -641041.**

**+91 6385383227 |** [**www.hopelearning.net**](http://www.hopelearning.net/) **|** [**mdaravind@hopelearning.net**](mailto:mdaravind@hopelearning.net) **| 33AAMCR3722R1ZU**

* + - Get the user input in numbers
    - If the number is less than 0, print withdrawal
    - If the number is greater than 0, print deposit
    - If the number is zero print zero

1. **Scenario:** A digital locker requires users to enter a numerical passcode. As part of a security feature, the system checks the sum of the digits of the passcode.  
    Write logic to compute the sum of the digits of a given number.

* Get the user input
* Initialize 0 and add each individual digit in the numbers
* Print the sum

1. **Scenario:** A mobile payment app uses a simple checksum validation where reversing a transaction ID helps detect fraud.  
    Write logic to take a number and return its reverse.

* Enter the passcode
* Reverse the number s[::1]
* Print the reversed number

1. **Scenario:** In a secure login system, certain features are enabled only for users with prime-numbered user IDs.  
    Write logic to check if a given number is prime.

* Enter the user input
* If number less than 2, it is not prime
* If number greater than 2, check the sqrt and if there is no divisibility it is prime else not a prime

1. **Scenario:** A scientist is working on permutations and needs to calculate the factorial of numbers frequently.  
    Write logic to find the factorial of a given number using recursion.

* Get the user input
* If number is 1, return 0
* If number is 2 , return 1
* If number greater than 2, add prev-1 and prev-2
* Print the sum

1. **Scenario:** A unique lottery system assigns ticket numbers where only Armstrong numbers win the jackpot.  
    Write logic to check whether a given number is an Armstrong number.

* Get the user input
* Initialize zero
* Get the len of number and use the number as a power of each number
* Add the numbers
* If result is equal to input number, then armstrong
* Else not a armstrong

1. **Scenario:** A password manager needs to strengthen weak passwords by swapping the first and last characters of user-generated passwords.  
    Write logic to perform this operation on a given string.

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* Get the string password
* Get the first letter and last letter using length
* Return last letter + middle part +first letter

1. **Scenario:** A low-level networking application requires decimal numbers to be converted into binary format before transmission.  
    Write logic to convert a given decimal number into its binary equivalent.

* Get the decimal number
* Initialize the number 0
* Divisible the input by 2 and store the remainder in number
* Divide the number by 2 and update the input as quotient and repeat step 3
* Append for remaining numbers
* Print the number

1. **Scenario:** A text-processing tool helps summarize articles by identifying the most significant words.  
    Write logic to find the longest word in a sentence.

* Enter the sentence
* Split the sentence into words
* Get the len of each words
* Now find the max number assigned to len
* Print the number

1. **Scenario:** A plagiarism detection tool compares words from different documents and checks if they are anagrams (same characters but different order).  
    Write logic to check whether two given strings are anagrams.
   * + - Enter the input
       - Convert it into lower case for case insensitivity
       - Sort both the words and compare
       - If both the same, they are anagrams
       - Else not a anagrams