NUMBERING SYSTEM ANALYSER : LUHYA LANGUAGE

PYTHON CODE:

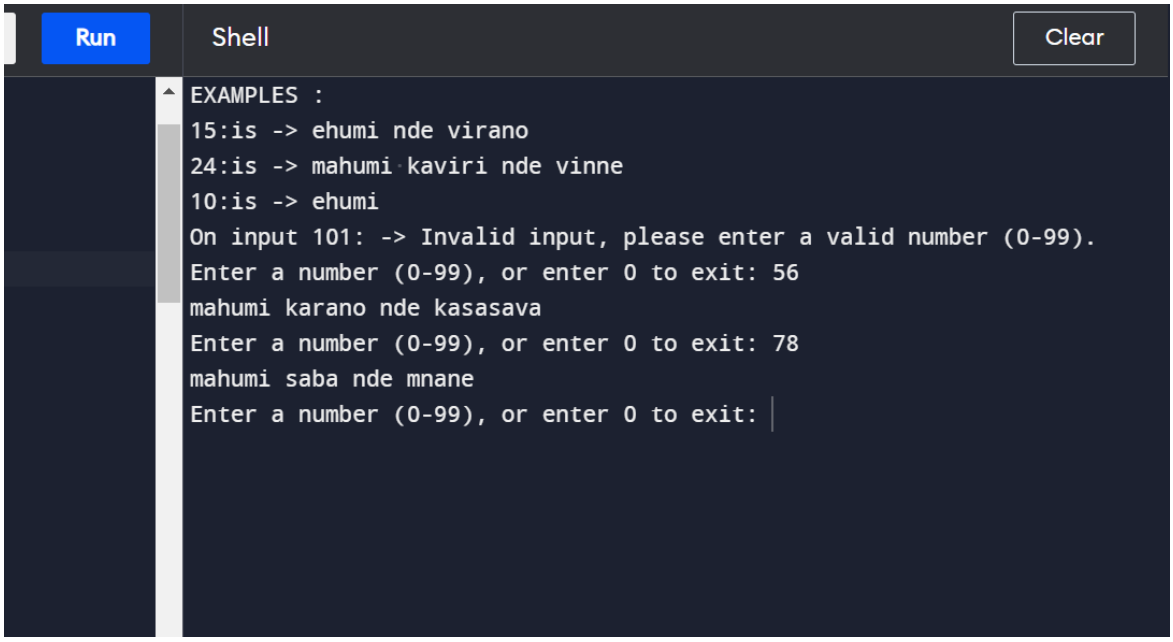
```
luhya_numbers = {
    "0": "sihaya",
    "1": "halala",
    "2": "viviri",
    "3": "vidaru",
    "4": "vinne",
    "5": "virano",
    "6": "kasasava",
    "7": "saba",
    "8": "mnane",
    "9": "tisa",
    "10": "ehumi",
    "20": "mahumi kaviri",
    "30": "mahumi kadaru",
    "40": "mahumi khane",
    "50": "mahumi karano",
    "60": "mahumi sita",
    "70": "mahumi saba",
    "80": "mahumi mnane",
    "90": "mahumi tisa"
}

def analyze_luhya_number(number):
    if number.isdigit() and 0 <= int(number) <= 99:
        if len(number) == 1:
            return luhya_numbers.get(number, "Invalid number")
        else:
            if number == "10":
                return luhya_numbers[number]
            else:
                tens_digit = number[0] + "0"
                ones_digit = number[1]
                if ones_digit == "0":
                    return luhya_numbers[tens_digit]
                else:
                    return luhya_numbers[tens_digit] + " nde " + luhya_numbers[ones_digit]
    else:
        return "Invalid input, please enter a valid number (0-99)."

# Main loop
```

```
print(" EXAMPLES :")
print("15:is -> "+ analyze_luhya_number("15"))  # Output: kumi na tano
print("24:is -> "+ analyze_luhya_number("24"))  # Output: ishirini na nne
print("10:is -> "+ analyze_luhya_number("10"))  # Output: kumi
print( "On input 101: -> "+ analyze_luhya_number("101")) # Output: Invalid input, please enter a valid number (0-99).
while True:
    user_input = input("Enter a number (0-99), or enter 0 to exit: ")
    if user_input == "0":
        break
    print(analyze_luhya_number(user_input))
```

Output



b) The Luhya language is a Bantu language spoken by the Luhya people in Western Kenya. The Luhya language is known for its rich vocabulary, distinct dialects within the Luhya ethnic group, and cultural significance.

c) The regularity in the Luhya number system can be observed in the way numbers are constructed. Similar to many other Bantu languages, Luhya uses a base-10 numeral system, where the names for numbers from 1 to 9 are combined with the names for multiples of ten to form the names of compound numbers.
For example:

The numbers from 1 to 9 have unique names: "halala" (1), "viviri" (2), "vidaru" (3), "vinne" (4), "virano" (5), "sita" (6), "kasasava" (7), "mnane" (8), and "tisa" (9).
The multiples of ten (10, 20, 30, ..., 90) have unique names with the prefix "mahumi": "ehumi" (10), "mahumi ishirini" (20), "mahumi kaviri" (30), "mahumi khane" (40), "mahumi karano" (50), "mahumi sita" (60), "mahumi saba" (70), "mahumi mnane" (80), and "mahumi tisa" (90).
This regularity in the number system makes it easier for Luhya speakers to comprehend and express numbers, especially when dealing with larger numbers formed by combining different components following the established patterns.