***Assignment 2:*** *Write a script that reads numbers from the user until they enter '0'. The script should also print whether each number is odd or even.*

***script in Bash to read numbers from the user until they enter '0' and print whether each number is odd or even:***

*Bash*

*#!/bin/bash*

*# Loop until user enters 0*

*while true; do*

*# Prompt user for input*

*read -p "Enter a number (0 to exit): " num*

*# Check if user wants to exit*

*if [ "$num" -eq 0 ]; then*

*break*

*fi*

*# Check if input is a valid number*

*if ! [[ "$num" =~ ^[0-9]+$ ]]; then*

*echo "Invalid input. Please enter a number."*

*continue*

*fi*

*# Check if number is odd or even*

*if [ "$((num % 2))" -eq 0 ]; then*

*echo "$num is even."*

*else*

*echo "$num is odd."*

*fi*

*done*

*echo "Exiting program."*

***How to Run the Script:***

1. *Open a text editor (e.g., Nano, Gedit) and create a new file (e.g., odd\_even.sh).*
2. *Copy and paste the script into the file.*

*Save the file.*

1. *Open the terminal and navigate to the directory where you saved the file.*
2. *Make the script executable with the command: chmod +x odd\_even.sh*
3. *Run the script with the command: ./odd\_even.sh*

***Explanation:***

*The while loop continues until the user enters 0.*

*The read command prompts the user for input.*

*The script checks if the input is 0 and exits the loop if true.*

*The script checks if the input is a valid number using a regular expression.*

*The script checks if the number is odd or even using the modulo operator (%).*