Shell Scripting

Hands-on Assignment:

Question 1
(5 points)
Write a shell script to change the values in a file(i.e sig.conf) according to the input passed to the script. The script should ask for all four inputs from the user & also validate the input.

Below are the details of input. In full bracket options are given, you have to restrict the user pass single value for each input from the provided options in the full bracket.
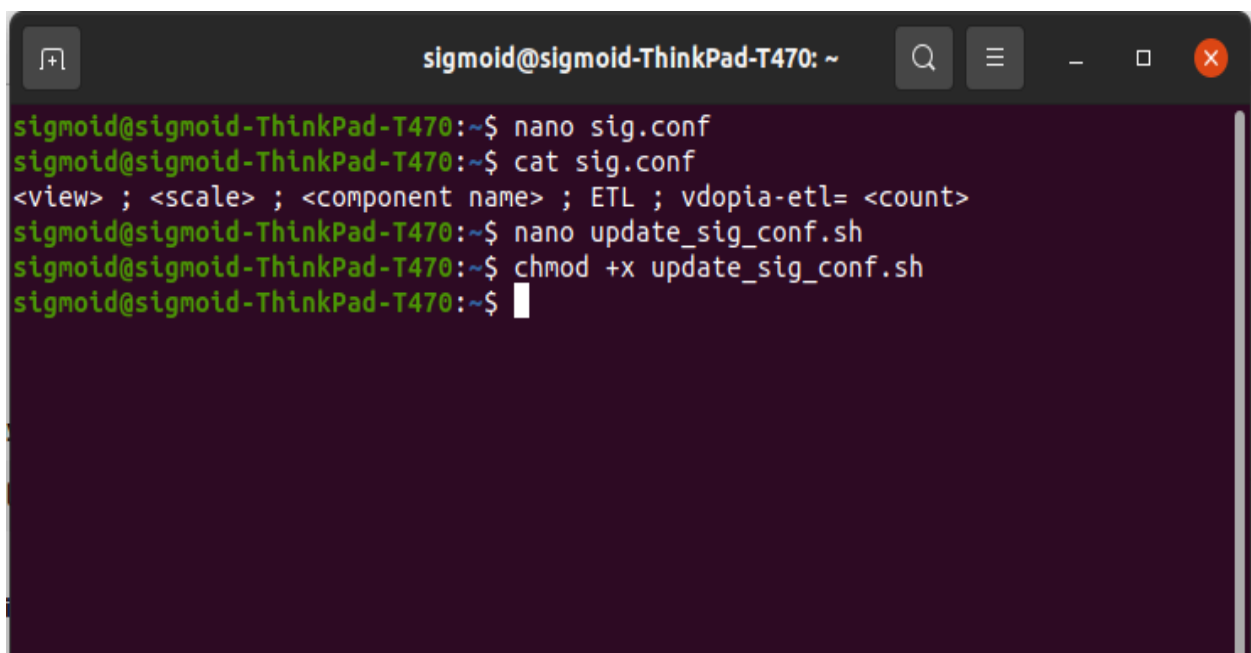
Input:-

1) Component Name [INGESTOR/JOINER/WRANGLER/VALIDATOR]

2) Scale **[MID/HIGH/LOW]**

3) View **[Auction/Bid]**

4) Count **[single digit number]**

Explanation of a conf file line.

<view> ; <scale> ; <component name> ; ETL ; vdopia-etl= <count>

Note:- vdopiasample stands for Auction & vdopiasample-bid is for Bid

The script should change the values in the file according to the input provided. At a time only one line of the conf file should be altered.

```bash
#!/bin/bash

validate_input() {
    input="$1"
    allowed="$2"
    if [[ ! " $allowed " =~ " $input " ]]; then
        echo "Invalid input. Allowed options are: $allowed"
        exit 1
    fi
}

validate_count() {
    local count="$1"
    if [[ ! "$count" =~ ^[0-9]$ ]]; then
        echo "Invalid count. Please enter a single digit number (0-9)."
        exit 1
    fi
}

echo "Please enter the Component Name [INGESTOR/JOINER/WRANGLER/VALIDATOR]:"
read -r component_name
validate_input "$component_name" "INGESTOR JOINER WRANGLER VALIDATOR"

echo "Please enter the Scale [MID/HIGH/LOW]:"
read -r scale
validate_input "$scale" "MID HIGH LOW"

echo "Please enter the View [Auction/Bid]:"
read -r view
validate_input "$view" "Auction Bid"

echo "Please enter the Count (single digit number 0-9):"
read -r count
validate_count "$count"

if [[ "$view" == "Auction" ]]; then
    view_name="vdopiasample"
else
```

```
    view_name="vdopiasample-bid"
fi

new_line="$view ; $scale ; $component_name ; ETL ; $view_name-etl= $count"

echo "The new configuration line to be inserted is:"
echo "$new_line"

update_line_in_file() {
    file="$1"
    new_line="$2"
    sed -i "0,/;/{s|.*|$new_line|;b}" "$conf_file"

}
conf_file="sig.conf"

if [[ ! -f "$conf_file" ]]; then
    echo "Configuration file '$conf_file' not found!"
    exit 1
fi

update_line_in_file "$conf_file" "$new_line"
echo "Configuration updated successfully!"
```

Updated sig.conf: