

1. 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.

```
#!/bin/bash
```

```
# File to be updated
```

```
CONF_FILE="sig.conf"
```

```
# Function to validate component name
```

```
validate_component() {
```

```
    local component=$1
```

```
    case $component in
```

```
        INGESTOR|JOINER|WRANGLER|VALIDATOR)
```

```
            return 0
```

```
            ;;
```

```
        *)
```

```
            echo "Invalid component name. Please choose from [INGESTOR, JOINER, WRANGLER, VALIDATOR]."
```

```
            return 1
```

```
            ;;
```

```
    esac
```

```
}
```

```
# Function to validate scale
```

```
validate_scale() {
```

```
    local scale=$1
```

```
    case $scale in
```

```
        MID|HIGH|LOW)
```

```
            return 0
```

```
            ;;
```

```
        *)
```

```
            echo "Invalid scale. Please choose from [MID, HIGH, LOW]."
```

```

        return 1
        ;;
    esac
}

# Function to validate view
validate_view() {
    local view=$1
    case $view in
        Auction|Bid)
            return 0
            ;;
        *)
            echo "Invalid view. Please choose from [Auction, Bid]."
            return 1
            ;;
    esac
}

# Function to validate count (single digit number)
validate_count() {
    local count=$1
    if [[ $count =~ ^[0-9]$ ]]; then
        return 0
    else
        echo "Invalid count. Please enter a single digit number (0-9)."
        return 1
    fi
}

# Prompt user for inputs and validate them
get_inputs() {
    while true; do
        read -p "Enter component name [INGESTOR/JOINER/WRANGLER/VALIDATOR]: "
        component
        validate_component $component && break
    done

    while true; do
        read -p "Enter scale [MID/HIGH/LOW]: " scale
        validate_scale $scale && break
    done

    while true; do

```

```

        read -p "Enter view [Auction/Bid]: " view
        validate_view $view && break
    done

    while true; do
        read -p "Enter count (single digit number): " count
        validate_count $count && break
    done
}

# Update conf file
update_conf_file() {
    local component=$1
    local scale=$2
    local view=$3
    local count=$4

    # Determine the view key
    local view_key=""
    if [[ $view == "Auction" ]]; then
        view_key="vdopiasample"
    elif [[ $view == "Bid" ]]; then
        view_key="vdopiasample-bid"
    fi

    # Construct the new line
    local new_line="$view ; $scale ; $component ; ETL ; $view_key= $count"

    # Find and replace the appropriate line in the conf file
    # Matching lines containing the component, scale, and view
    sed -i "/$view.*$scale.*$component/c\\$new_line" $CONF_FILE

    echo "Configuration updated successfully."
}

# Main script starts here
if [[ ! -f $CONF_FILE ]]; then
    echo "Configuration file $CONF_FILE not found!"
    exit 1
fi

# Get inputs from user
get_inputs

# Update the conf file with the provided inputs
update_conf_file $component $scale $view $count

```

```
Activities Terminal Sep 17 12:02
sigmoid@sigmoid-ThinkPad-T460: ~
sigmoid@sigmoid-ThinkPad-T460:~$ pwd
/home/sigmoid
sigmoid@sigmoid-ThinkPad-T460:~$ nano sig.conf
sigmoid@sigmoid-ThinkPad-T460:~$ nano update_sig_conf.sh
sigmoid@sigmoid-ThinkPad-T460:~$ chmod +x update_sig_conf.sh
sigmoid@sigmoid-ThinkPad-T460:~$ ./update_sig_conf.sh
Enter component name [INGESTOR/JOINER/WRANGLER/VALIDATOR]: INGESTOR
Enter scale [MID/HIGH/LOW]: MID
Enter view [Auction/Bid]: Auction
Enter count (single digit number): 9
Configuration updated successfully.
sigmoid@sigmoid-ThinkPad-T460:~$
```

The configuration file where only a single line was modified:-

```
Activities Terminal Sep 17 12:02
sigmoid@sigmoid-ThinkPad-T460: ~
GNU nano 4.8 sig.conf
Auction ; MID ; INGESTOR ; ETL ; vdopiasample= 9
Bid ; HIGH ; JOINER ; ETL ; vdopiasample-bid= 5
Auction ; LOW ; WRANGLER ; ETL ; vdopiasample= 4
Bid ; MID ; VALIDATOR ; ETL ; vdopiasample-bid= 7

[ Read 4 lines ]
Get Help Write Out Where Is Cut Text Justify Cur Pos M-U Undo M-A Mark Text M-] To Bracket
Exit Read File Replace Paste Text To Spell Go To Line M-E Redo M-C Copy Text M-_ Where Was
```