

**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.

### **sig.conf**

vdopiasample-bid ; HIGH ; VALIDATOR ; ETL ; vdopia-etl= 9

### **update\_conf.sh**

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

```
# Function to display error message and exit
```

```
function error_exit {  
    echo "$1" >&2  
    exit 1  
}
```

```
# Function to validate input
```

```
function validate_input {  
    local input="$1"  
    local options=("$@")  
    for option in "${options[@]}; do  
        if [[ "$input" == "$option" ]]; then  
            return 0  
        fi  
    done  
    return 1  
}
```

```
# Get user inputs with validation
```

```
read -p "Enter Component Name [INGESTOR/JOINER/WRANGLER/VALIDATOR]: " component  
validate_input "$component" "INGESTOR" "JOINER" "WRANGLER" "VALIDATOR" ||  
error_exit "Invalid Component Name."
```

```
read -p "Enter Scale [MID/HIGH/LOW]: " scale
```

```
validate_input "$scale" "MID" "HIGH" "LOW" || error_exit "Invalid Scale."
```

```
read -p "Enter View [Auction/Bid]: " view
```

```

validate_input "$view" "Auction" "Bid" || error_exit "Invalid View."

read -p "Enter Count [single digit number]: " count
if ! [[ "$count" =~ ^[0-9]$ ]]; then
    error_exit "Invalid Count. Please enter a single digit number."
fi

# Construct the new line based on user inputs
if [[ "$view" == "Auction" ]]; then
    view_value="vdopiasample"
else
    view_value="vdopiasample-bid"
fi

new_line="$view_value ; $scale ; $component ; ETL ; vdopia-etl= $count"

# Define the conf file
conf_file="sig.conf"

# Search for a matching line to replace
match_pattern="^vdopiasample.* ; .* ; .* ; ETL ; vdopia-etl= [0-9]$"

if ! grep -qE "$match_pattern" "$conf_file"; then
    error_exit "No matching line found to replace in $conf_file."
fi

# Replace the first matching line
sed -i "0,$match_pattern/s/.*/$new_line/" "$conf_file"

echo "Updated $conf_file successfully."

```

## Snap shots

```
Activities Terminal Sep 18 12:41 PM sigmoid@sigmoid-ThinkPad-L460: ~
sigmoid@sigmoid-ThinkPad-L460:~$ nano sig.conf
sigmoid@sigmoid-ThinkPad-L460:~$ cat sig.conf
vdopiasample-bid ; HIGH ; VALIDATOR ; ETL ; vdopia-etl= 9
sigmoid@sigmoid-ThinkPad-L460:~$ nano update_conf.sh
sigmoid@sigmoid-ThinkPad-L460:~$ cat update_conf.sh
#!/bin/bash

# Function to display error message and exit
function error_exit {
    echo "$1" >&2
    exit 1
}

# Function to validate input
function validate_input {
    local input="$1"
    local options=("${@:2}")
    for option in "${options[@]%%:1}"; do
        if [[ "$input" == "$option" ]]; then
            return 0
        fi
    done
    return 1
}

# Get user inputs with validation
read -p "Enter Component Name [INGESTOR/JOINER/WRANGLER/VALIDATOR]: " component
validate_input "$component" "INGESTOR" "JOINER" "WRANGLER" "VALIDATOR" || error_exit "Invalid Component Name."

read -p "Enter Scale [MID/HIGH/LOW]: " scale
validate_input "$scale" "MID" "HIGH" "LOW" || error_exit "Invalid Scale."

read -p "Enter View [Auction/Bid]: " view
validate_input "$view" "Auction" "Bid" || error_exit "Invalid View."
```

```
Activities Terminal Sep 18 12:41 PM sigmoid@sigmoid-ThinkPad-L460: ~
sigmoid@sigmoid-ThinkPad-L460:~$ cat update_conf.sh
validate_input "$view" "Auction" "Bid" || error_exit "Invalid View."

read -p "Enter Count [single digit number]: " count
if ! [[ "$count" =~ ^[0-9]$ ]]; then
    error_exit "Invalid Count. Please enter a single digit number."
fi

# Construct the new line based on user inputs
if [[ "$view" == "Auction" ]]; then
    view_value="vdopiasample"
else
    view_value="vdopiasample-bid"
fi

new_line="$view_value ; $scale ; $component ; ETL ; vdopia-etl= $count"

# Define the conf file
conf_file="sig.conf"

# Search for a matching line to replace
match_pattern="^vdopiasample.* ; .* ; .* ; ETL ; vdopia-etl= [0-9]$"

if ! grep -qE "$match_pattern" "$conf_file"; then
    error_exit "No matching line found to replace in $conf_file."
fi

# Replace the first matching line
sed -i "0,$match_pattern/s/./$new_line/" "$conf_file"

echo "Updated $conf_file successfully."
sigmoid@sigmoid-ThinkPad-L460:~$ chmod 755 update_conf.sh
sigmoid@sigmoid-ThinkPad-L460:~$ ls -ltr update_conf.sh
-rwxr-xr-x 1 sigmoid sigmoid 1608 Sep 18 11:51 update_conf.sh
sigmoid@sigmoid-ThinkPad-L460:~$ chmod 755 sig.conf
sigmoid@sigmoid-ThinkPad-L460:~$ ls -ltr sig.conf
```

```
Activities Terminal Sep 18 12:41 PM sigmoid@sigmoid-ThinkPad-L460: ~
else
    view_value="vdopiasample-bid"
fi

new_line="$view_value ; $scale ; $component ; ETL ; vdopia-etl= $count"

# Define the conf file
conf_file="sig.conf"

# Search for a matching line to replace
match_pattern="^vdopiasample.* ; .* ; .* ; ETL ; vdopia-etl= [0-9]$"

if ! grep -qE "$match_pattern" "$conf_file"; then
    error_exit "No matching line found to replace in $conf_file."
fi

# Replace the first matching line
sed -i "0,$match_pattern/s/./$new_line/" "$conf_file"

echo "Updated $conf_file successfully."
sigmoid@sigmoid-ThinkPad-L460:~$ chmod 755 update_conf.sh
sigmoid@sigmoid-ThinkPad-L460:~$ ls -ltr update_conf.sh
-rwxr-xr-x 1 sigmoid sigmoid 1608 Sep 18 11:51 update_conf.sh
sigmoid@sigmoid-ThinkPad-L460:~$ chmod 755 sig.conf
sigmoid@sigmoid-ThinkPad-L460:~$ ls -ltr sig.conf
-rwxr-xr-x 1 sigmoid sigmoid 58 Sep 18 11:55 sig.conf
sigmoid@sigmoid-ThinkPad-L460:~$ ./update_conf.sh
Enter Component Name [INGESTOR/JOINER/WRANGLER/VALIDATOR]: WRANGLER
Enter Scale [MID/HIGH/LOW]: MID
Enter View [Auction/Bid]: Auction
Enter Count [single digit number]: 3
Updated sig.conf successfully.
sigmoid@sigmoid-ThinkPad-L460:~$ cat sig.conf
vdopiasample ; MID ; WRANGLER ; ETL ; vdopia-etl= 3
sigmoid@sigmoid-ThinkPad-L460:~$
```