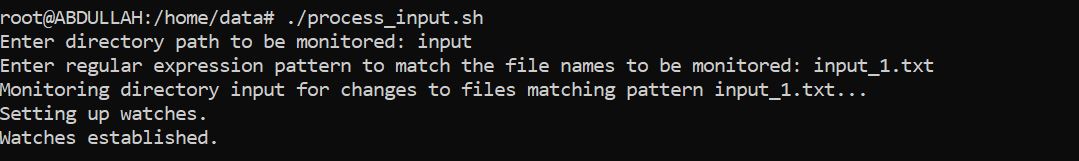
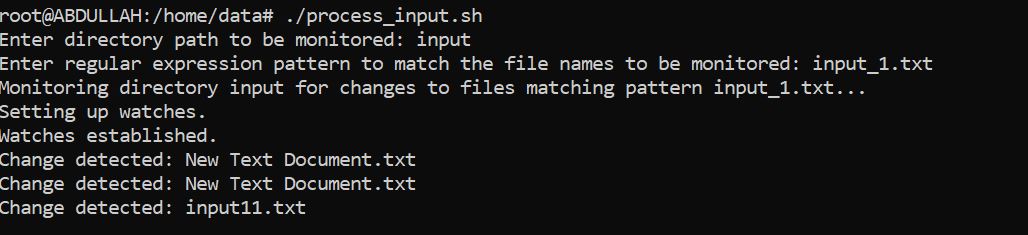


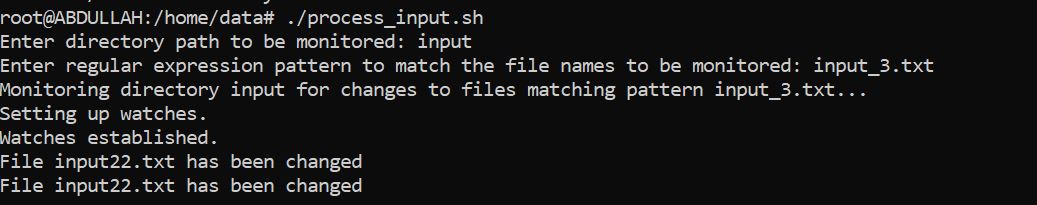
* **Before changes:**

****

* **After Changes:**
* **New file creation:**

****

* **Changes inside a file:**

****

* **process\_input.sh Code:**

#!/bin/bash

# Get input from user

read -p "Enter directory path to be monitored: " monitor\_dir

read -p "Enter regular expression pattern to match the file names to be monitored: " pattern

# Validate the pattern

if ! [[ "$pattern" =~ ^(input|log)\_[1-9]|[1][0]|\.txt$ ]]; then

echo "Invalid pattern"

exit 1

fi

# Check if monitor directory exists and is readable

if [ ! -d "$monitor\_dir" ] || [ ! -r "$monitor\_dir" ]; then

echo "Monitor directory does not exist or is not readable"

exit 1

fi

# Create backup directory if it does not exist

backup\_dir="backup\_$(date +%Y-%m-%d\_%H-%M-%S)"

if [ -d "$backup\_dir" ]; then

read -p "Backup directory already exists. Overwrite (y/n)? " overwrite

if [ "$overwrite" == "n" ]; then

backup\_dir="$backup\_dir-$(date +%N)"

fi

fi

mkdir -p "$backup\_dir"

# Define function to be called on file change

on\_change() {

local changed\_file="$1"

echo "Change detected: $changed\_file"

# Check if file matches pattern

if [[ "$changed\_file" =~ $pattern ]]; then

echo "File $changed\_file matches pattern"

# Check if file contains specific string

if grep -q "specific string" "$changed\_file"; then

echo "File $changed\_file contains specific string"

# Extract specific values from file

specific\_values=$(awk '/specific string/ {print $1,$2}' "$changed\_file")

echo "Specific values: $specific\_values"

# Create backup of file

cp "$changed\_file" "$backup\_dir/"

# Modify file contents

sed -i 's/specific string/new value/g' "$changed\_file"

# Check number of lines in file

num\_lines=$(wc -l < "$changed\_file")

if [ "$num\_lines" -gt 10 ]; then

# Extract first and last 5 lines to separate file

head -5 "$changed\_file" > /home/data/first\_5\_lines.txt

tail -5 "$changed\_file" > /home/data/last\_5\_lines.txt

fi

# Compress backup directory with timestamp

timestamp=$(date +%Y-%m-%d\_%H-%M-%S)

tar -czf "$backup\_dir-$timestamp.tar.gz" "$backup\_dir"

fi

fi

}

# Monitor directory for changes

echo "Monitoring directory $monitor\_dir for changes to files matching pattern $pattern..."

inotifywait -m -e modify,create,delete --format '%f' "$monitor\_dir" |

while read changed\_file; do

on\_change "$changed\_file"

done

# Exit script

exit 0

* **Bash Script to run:**

./process\_input.sh