#!/bin/bash

# Exit if there is no command 0

if [ $# -eq 0 ]; then

    echo 'Usage: bash submission.sh <command> <any other extra arguments(if needed)>'

    exit 1

fi

# If the first argument is 'combine'

: '

    Combine all csv files in the directory

    To combine all csv files in current directory: Usage: bash submission.sh combine

    To combine all csv files in a given directory: Usage: bash submission.sh combine <directory>

    To combine given csv files (more than 1):      Usage: bash submission.sh combine <file1.csv> <file2.csv> <file3.csv> ...

'

if [ "$1" = 'combine' ]; then

    total\_run\_before=false

    if [ -f "main.csv" ]; then

        total\_exists=$(head -n 1 main.csv | grep "total")

        if [ -n "$total\_exists" ]; then

            total\_run\_before=true

        fi

    fi

    touch main.csv

    echo -n "Roll\_Number,Name" > main.csv

    if [ $# -gt 2 ]; then

        # Check if all extra arguments are csv files

        for file in "${@:2}"; do

            if [ -f "$file" ]; then

                if [[ ! "$file" == \*.csv ]]; then

                    echo "File $file is not a CSV file"

                    exit 1

                fi

            else

                echo "File $file does not exist"

                exit 1

            fi

        done

        # Create the header

        for file in "${@:2}"; do

            echo -n ",$(basename "$file" .csv )" >> main.csv

        done

        echo "" >> main.csv

        # put the names and roll numbers

        for file in "${@:2}"; do

        line\_number=0

            while read -r line || [ -n "$line" ]; do

                ((line\_number++))

                if [ $line\_number -eq 1 ]; then

                    continue  # Skip processing the header

                fi

                roll\_no="$(echo "$line" | cut -d ',' -f 1)"

                #check if roll no is already in the file

                if grep -q "$roll\_no" main.csv; then

                    continue

                fi

                echo "$(echo "$line" | cut -d ',' -f 1,2)"

            done < "$file"

        done >> main.csv

        # put the marks

        for file in "${@:2}"; do

            line\_number\_in\_main=0

            while read -r line || [ -n "$line" ]; do

                ((line\_number\_in\_main++))

                if [ $line\_number\_in\_main -eq 1 ]; then

                    continue  # Skip processing the header

                fi

                roll\_no="$(echo "$line" | cut -d ',' -f 1)"

                line\_number\_in\_marks=$(cut -d ',' -f 1 "$file" | grep -n -m 1 "^$roll\_no" | cut -d ':' -f 1)

                if [ -z "$line\_number\_in\_marks" ]; then

                    sed -i "${line\_number\_in\_main}s/$/,a/" main.csv

                else

                    marks=$(head -n "$line\_number\_in\_marks" "$file" | tail -n 1 | cut -d ',' -f 3)

                    sed -i "${line\_number\_in\_main}s/$/,${marks}/" main.csv

                fi

            done < main.csv

        done >> main.csv

        if [ "$total\_run\_before" = true ]; then

            bash submission.sh total

        fi

    elif [ $# -eq 2 ]; then

        # If only one extra argument is provided, assume it to be a directory and combine all csv files in the directory

        filenames=$(ls $2/\*.csv)

        bash submission.sh combine $filenames

    elif [ $# -eq 1 ]; then

        # If no extra arguments are provided, combine all csv files in the directory

        bash submission.sh combine .

    fi

fi

# If the first argument is 'upload'

: '

    `upload` command is used to copy the file to the given directory

    To copy the file to the current directory: Usage: bash submission.sh upload <file>

'

if [ "$1" = 'upload' ]; then

    if [ $# -eq 3 ]; then

        if [ -d "$3" ]; then

            cp $2 $3

        else

            echo "{$3} is not a directory"

            exit 1

        fi

    elif [ $# -eq 2 ]; then

        cp $2 .

    fi

fi

# If the first argument is 'total'

if [ "$1" = 'total' ]; then

    if [ -f "main.csv" ]; then

        total\_exists=$(head -n 1 main.csv | grep "total")

        if [ -n "$total\_exists" ]; then

            echo "Total has already been run"

        else

            echo "total" > total.csv

            awk -F, 'NR>1 {for(i=3;i<=NF;i++) { if ($i == "a") $i = 0; s+=$i;} print s; s=0;}' main.csv >> total.csv

            paste -d',' main.csv total.csv > temp.csv

            mv temp.csv main.csv

            rm total.csv

        fi

    else

        echo "main.csv does not exist"

        echo "Run the command 'bash submission.sh combine' first"

        exit 1

    fi

fi

if [ "$1" = 'update' ]; then

    echo "Roll No. of student to be updated: "

    read roll\_no

    echo "Enter exam name: "

    read exam\_name

    echo "Enter new marks: "

    read new\_marks

    if [ -f "main.csv" ]; then

        echo "yo"

    else

        echo "main.csv does not exist"

        echo "Run the command 'bash submission.sh combine' first"

        exit 1

    fi

fi

# If the first argument is 'clean'

if [ "$1" = 'clean' ]; then

    rm main.csv

fi

if [ "$1" != 'combine' ] && [ "$1" != 'upload' ] && [ "$1" != 'total' ] && [ "$1" != 'clean' ]; then

    echo "Invalid command"

    exit 1

fi