

1 Merging results from previous years

Whenever we start a new course, there are always some of the students who have participated in the course before. They will only do the assignments that they have not done before. In these cases, it would be useful to move over their results from the previous year to the new course.

If we do this regularly, that means that we will be continuously pushing the results forward. This means that we only need to bring the results from the student's last round. However, results from restlab might find their way into any of the courses—it all depends on what the student says is their course round.

1.1 A script

We want a script that will take a list of current courses. For each student, we want to find the results from the previous years. We want the newest result from those previous years copied into the current course.

```
1a  <oldresults.sh 1a>≡
    #!/bin/bash

    <constants 1b>
    <helper functions 2a>

    main() {
        for course in ${current_courses}; do
            for student in $(canvaslms users -sc "${course}" | cut -f 2); do
                <move student's old results to course 2d>
            done
        done
    }

    # run main if not sourced
    if [ "$0" = "${BASH_SOURCE}" ]; then
        main
    fi
```

Root chunk (not used in this document).

```
1b  <constants 1b>≡
    current_courses="tilkry25"
```

This definition is continued in chunk 2b.
This code is used in chunk 1a.

2 Results

We want a general function that returns all results. (But does it cached, so that when we call it again it doesn't refetch any results.) We also want to use their

login names, not their full names (-l).

```
2a  <helper functions 2a>≡
    results() {
        if [ ! -s "${cached_results}" ]; then
            canvaslms submissions -c "${course_prefixes}" -l > "${cached_results}"
        fi
        cat "${cached_results}"
    }
```

This definition is continued in chunk 2c.

This code is used in chunk 1a.

```
2b  <constants 1b>+≡
    cached_results="/tmp/oldresults.cache"
    course_prefixes="(tilkry|prg[im]|vetcyb)"
```

This code is used in chunk 1a.

3 Find the newest grade

We want to find the newest grade for a student. We can use the grading dates for this.

```
2c  <helper functions 2a>+≡
    newest_grade() {
        student=$1
        course=$2
        assgn=$3
        grades=$(results \
            | grep "${course}" \
            | grep "${student}" \
            | grep "${assgn}")
        newest=$(echo "${grades}" \
            | sort -u -k 6 \
            | tail -n 1)
        echo "${newest}" | cut -f 4
    }
```

This code is used in chunk 1a.

4 The move function

```
2d  <move student's old results to course 2d>≡
    grades=$(canvaslms submissions -c tilkry2[012] -u $student | cut -f 2,4 | sort
    -u)
    IFS=$'\n'
    if [ -z "$grades" ]; then
        continue
```

```
fi
for grade in $grades; do
  assgn=$(echo "$grade" | cut -f 1 -d $'\t')
  grade=$(echo "$grade" | cut -f 2 -d $'\t')
  if [ -z "$grade" ]; then
    continue
  fi
  echo $student $assgn $grade
  #canvaslms grade -c tilkry24 -a "$assgn" -g "$grade" -u $student -m
  #"Result from previous year."
done
```

This code is used in chunk 1a.