

Processing data :

1. Find position of "student" in args
2. Save words before "students" into an array: datafile
3. Save student ID after "student" into another array: ID
4. Save every line in "student.dat" into another array (id\_name)
5. Loop array id\_name: when id in id\_name is equal to id in arrayed, create transcript.

Create transcript: use function <https://www.shellscript.sh/functions.html>

1. Loop array: datafile
  - a. Find id (id in array ID)
  - b. When id does not exist in the file, directly search next file, using "grep".
  - c. If exists, then save every line in the file into array file\_content
  - d. Split first line of array file\_content and following lines in different arrays (array information and array grade )
  - e. Loop array information
    - i. skip "Subject"
    - ii. print information
    - iii. when read to index3 print sem1/sem2.
    - iv. loop array grade
      - a) when id in array grade equals id in array ID
      - b) save grade character into an array grade\_level, then print
  - f. calculate GPA (calculated by array grade\_level)