

PRACTICAL EXAM [1] – CSD201 – SPRING 2023 Duration: 85 minutes

Write a project that manages **workers** (**key**: int, **name**: String, and **age**: int) on a binary search tree (based on the order on key) T with the following requirements:

- 1. Find the node of T containing worker whose key matches a given key; and keep its parent node if possible.
- 2. Insert a new worker to T if this worker has not stored on T yet.
- 3. Output the workers on T in descending order.
- 4. Count the number of workers stored in T, whose age are less than 25.
- 5. Delete the right-most node of T.
- 6. Determine the height of T using a level order traversal.
- 7. Create a binary search tree of the largest height from a given nonempty sequence of workers.

Note: Submit java files only!