**Course: ENSF 614** - Fall 2023  
**Lab #:** Lab 4  
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**Exercise A**

String\_Vector transpose(const String\_Vector& sv) {

assert(sv.size() >= 1);

size\_t rows = sv.size();

size\_t col = sv.at(0).size();

// check if all strings have the same length

for (const auto& s : sv) {

assert(s.size() == col);

}

String\_Vector vs(col, string(rows, ' '));

for (size\_t j = 0; j < col; j++) {

for (size\_t i = 0; i < rows; i++) {

vs[j][i] = sv[i][j];

}

}

return vs;

}

**Sample Output:**

A black screen with white text

Description automatically generated

Exercise B