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CS312 – Analysis of Algorithms

Homework Assignment 4 – INSERTION-SORT Implementation - Questions

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Questions:

1. Which lines from the INSERTION-SORT algorithm is the function implementing?

* The insert function is implementing from lines 5 to 8 of the **insertion-sort** algorithm.

1. A) How would you describe what the *insert* function does?

- It is finding the position in array A, where the key is less than or equal to all values after its position and is greater than or equal to all values preceding its position. For each time the function finds a value at index of A greater than the key. That value is moved further forward in that array until the key reaches a proper sorted position.

B) What assumption is made about the array that it takes as argument?

The function assumes that the subset of array a[0..i] is already sorted.