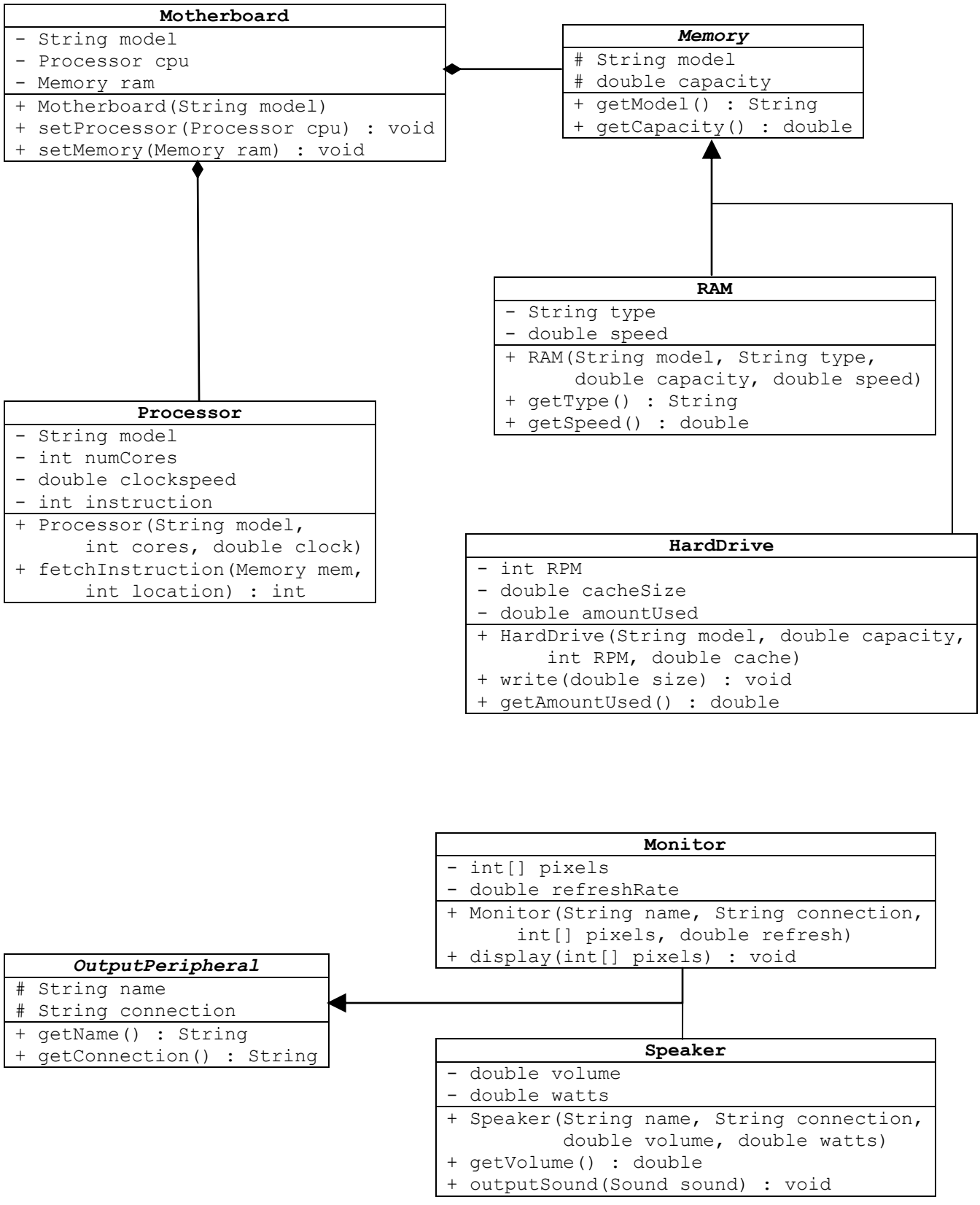
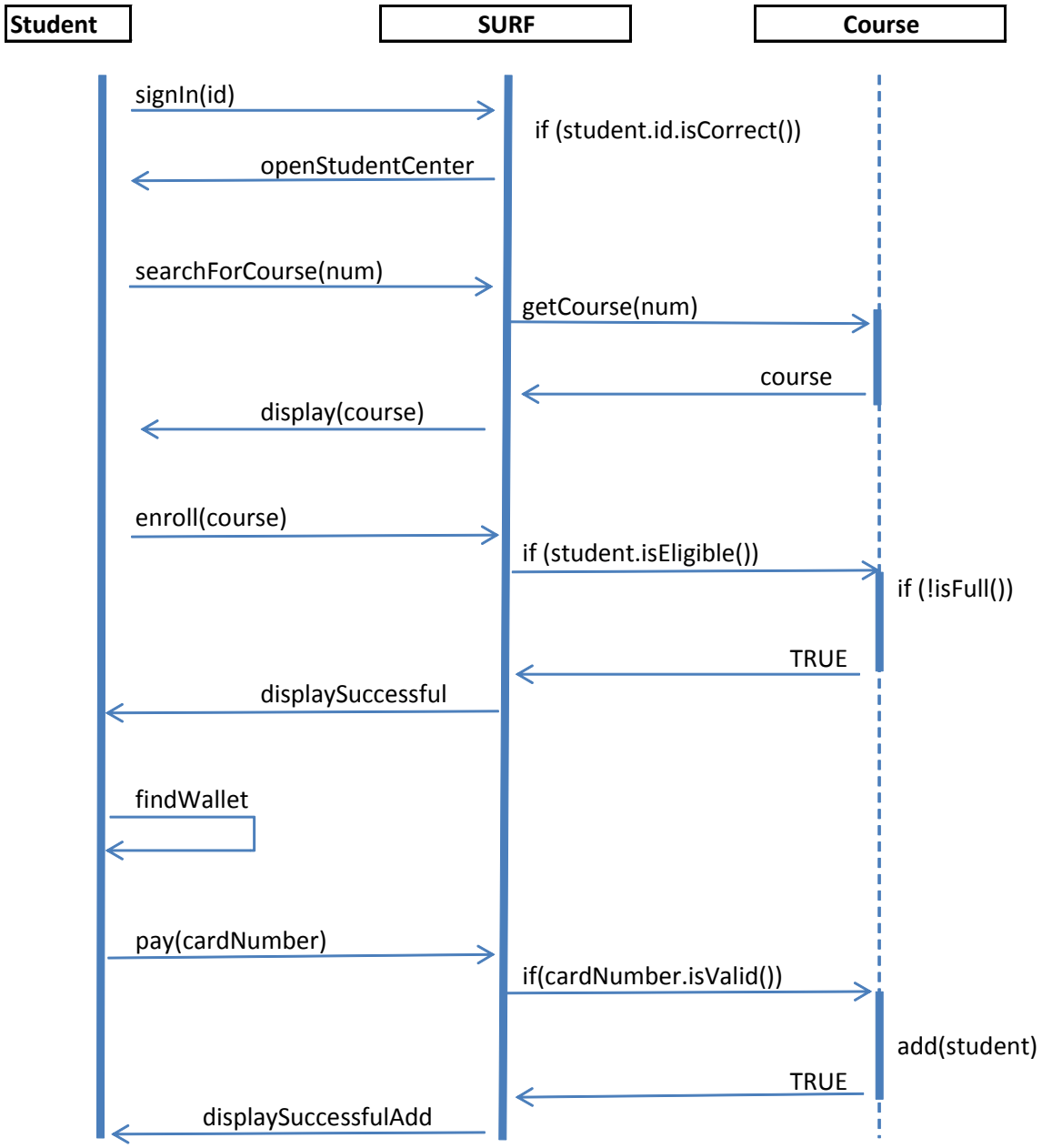
Evan Carey
CS113
Week 2 HW



Evan Carey
CS113
Week 2 HW

Sequence Diagram



Evan Carey
CS113
Week 2 HW

3. Big-O Notation

a. Rank in order of increasing run times, if they are the same list them together

O(0)
O(5)
O(2/N)
O(log N)
$O(\sqrt{N})$
O(N)
$O(N^{1.5})$
O(N log N)
$O(N^2)$, O(NM)
$O(N^4)$
$O(2^N)$
$O(\infty)$

b. What is the complexity of each piece of code?

i. O(n)
ii. $O(n^2)$
iii. $O(n^2)$
iv. $O(n^4)$