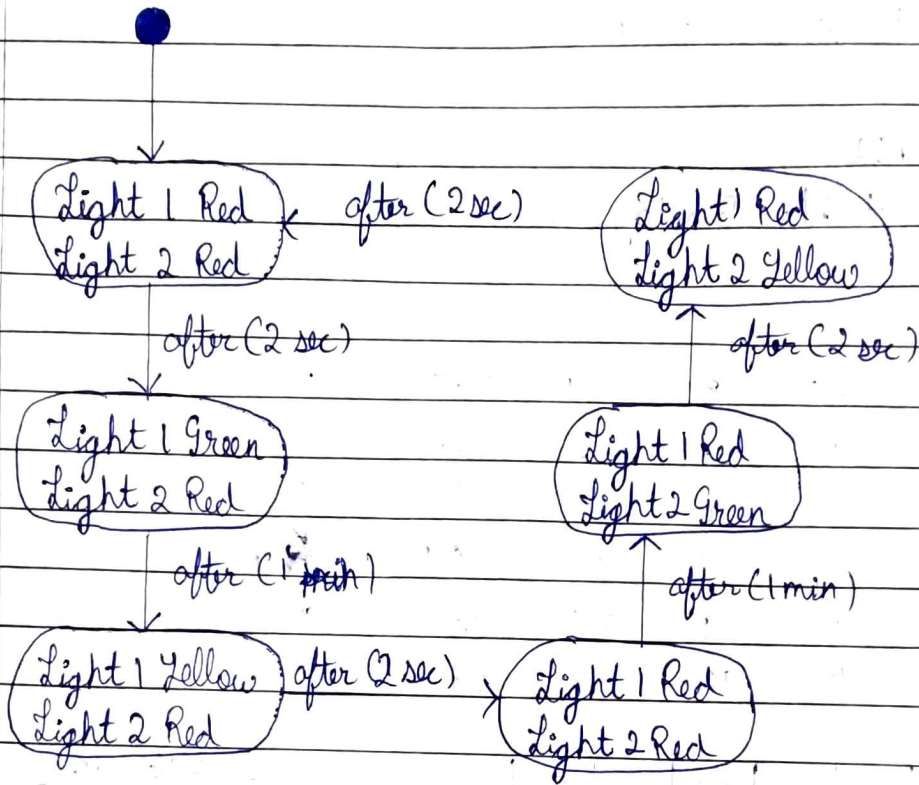


Varun Khadayat A016

UML

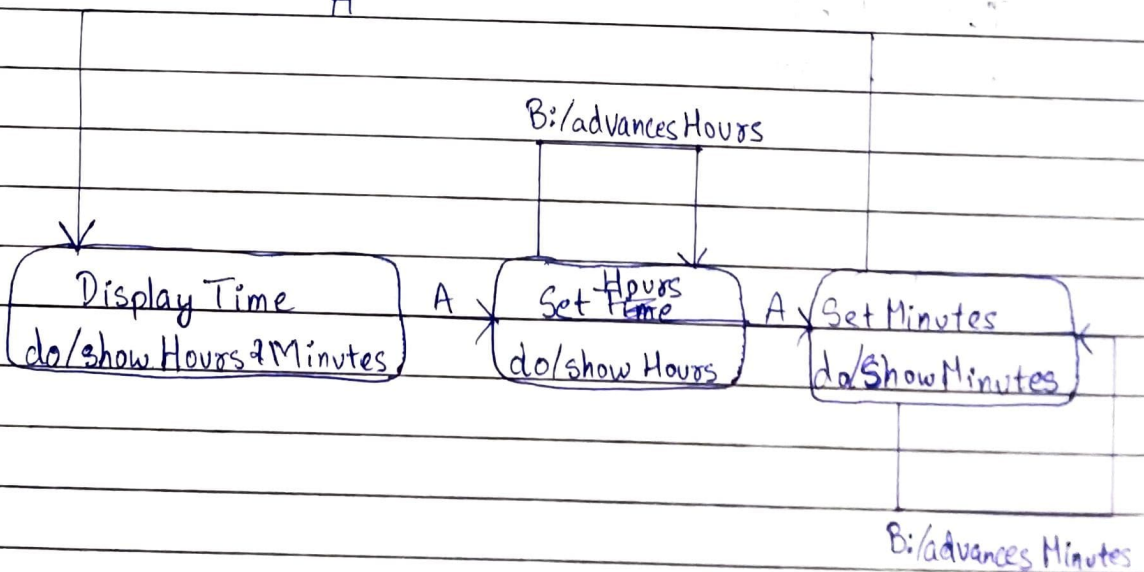
Assignment - V

Q1.

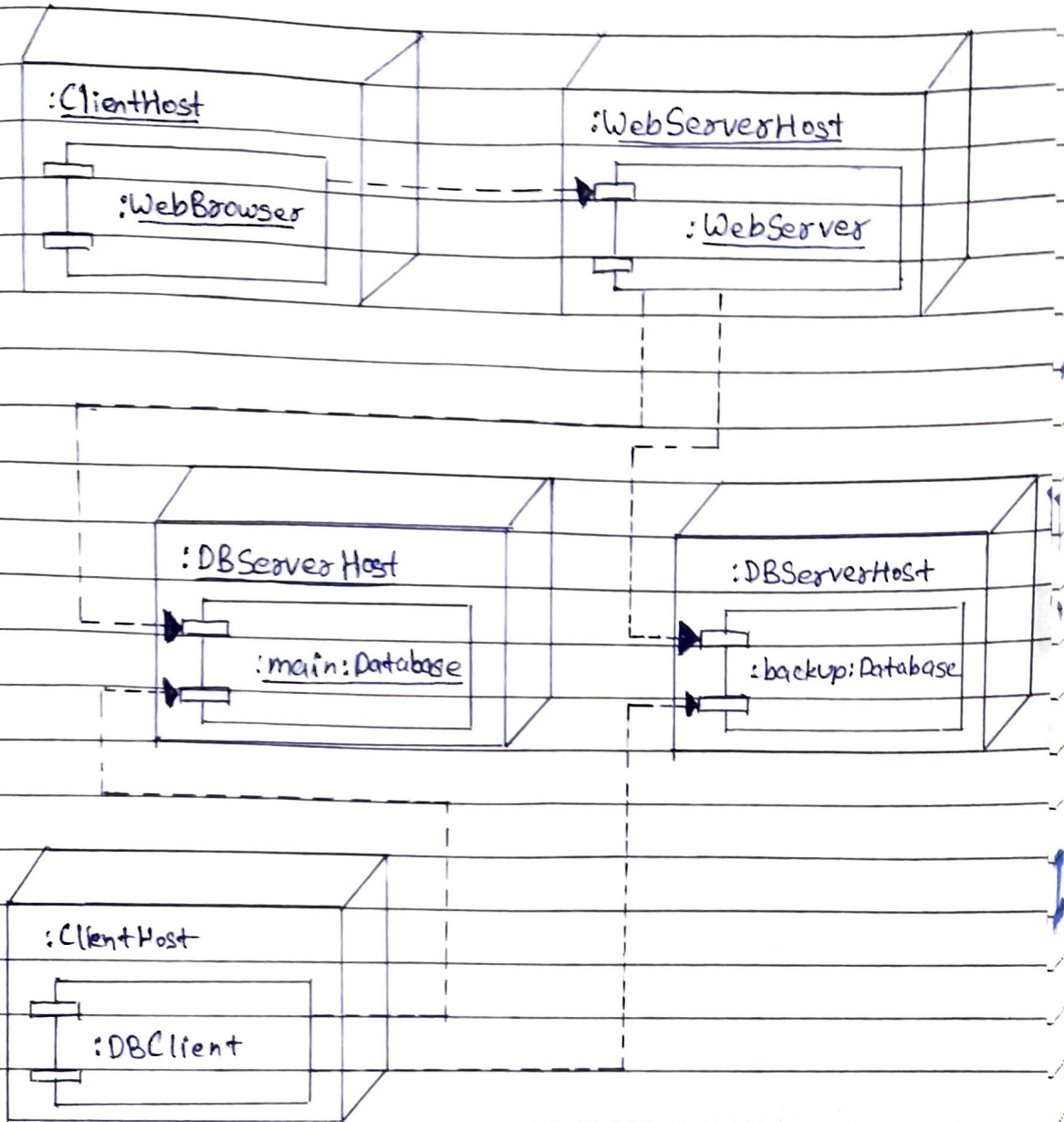


Q2.

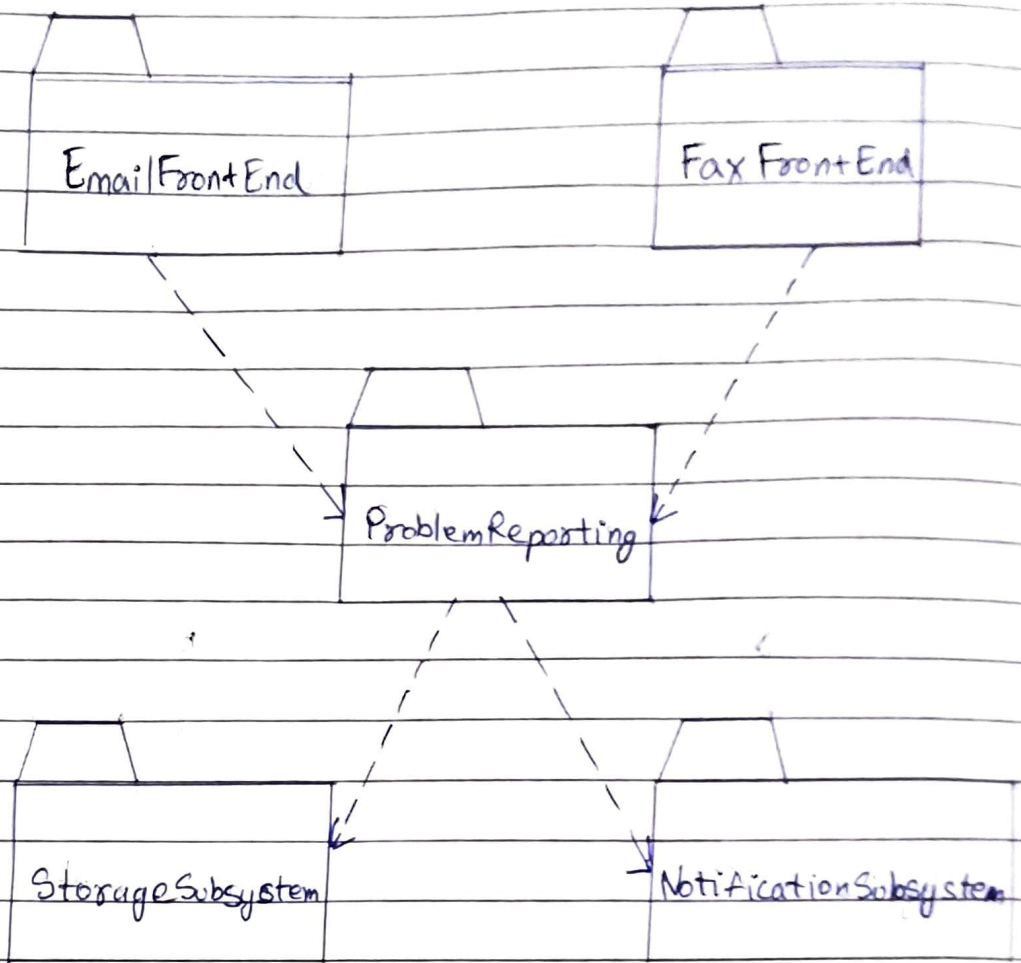
A



Q3



Q4.



Q5.

a. context List::size()

post: result = elements -> size

b. context List::add(e)

post: contains(e) and size() = @pre.size() + 1

c. context List::remove(e)

post: (@pre.contains(e) implies size() = @pre.size() - 1) and
 (not @pre.contains(e) implies size() = @pre.size()) and
 result = @pre.contains(e)

d. context List::getcontains(e)
 post: result = elements → includes(e)

e. context List::getCidx
 pre: idx ≥ 0 and idx < size()

context List::getCidx
 post: result = elements → at(Cidx + 1)

Q6.

a. context Set::size()
 post: result = elements → size

b. context Set::add(e)
 post: contains(e) and
 (@pre.contains(e) implies size() = @pre.size()) and
 (not @pre.contains(e) implies size() = @pre.size() + 1)

c. context Set::remove(e)
 post: not contains(e) and
 (@pre.contains(e) implies size() = @pre.size() - 1) and
 (not @pre.contains(e) implies size() = @pre.size())

d. context Set::contains(e)
 post: elements → includes(e)