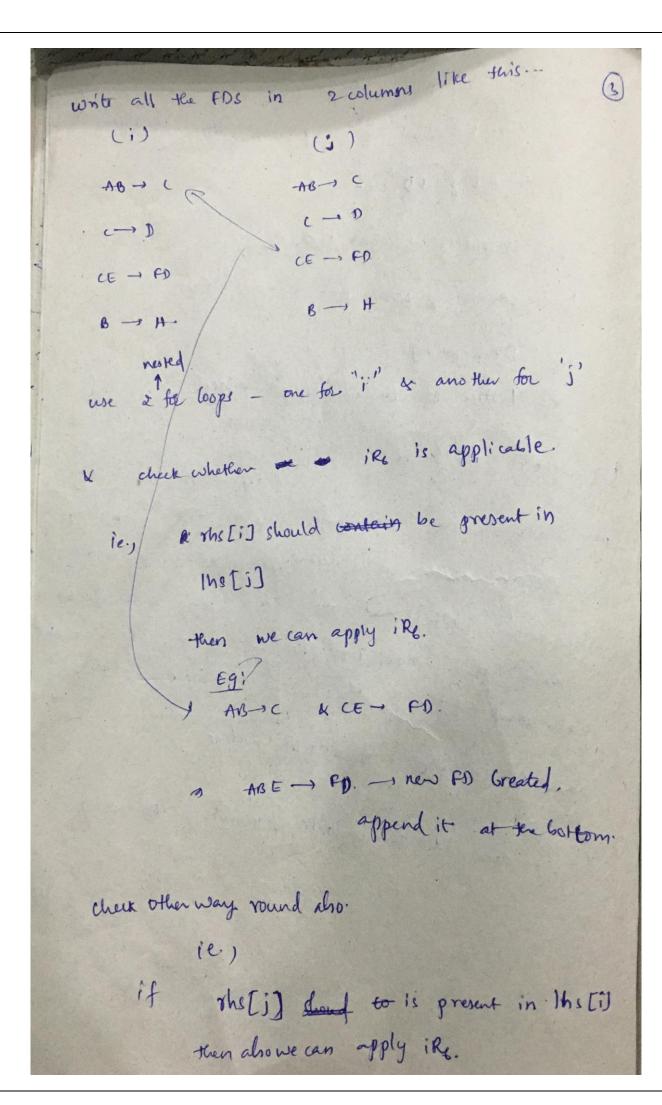
0 module 1: - 2 classes are there present i) Attr -03 ii) Assign Module 1. 1. This contains the main function of Scanner class. -. class "Attr" contains all the stryf. -. This class contains. i) 15 variables. (excluding method specific ii) 22 methods.

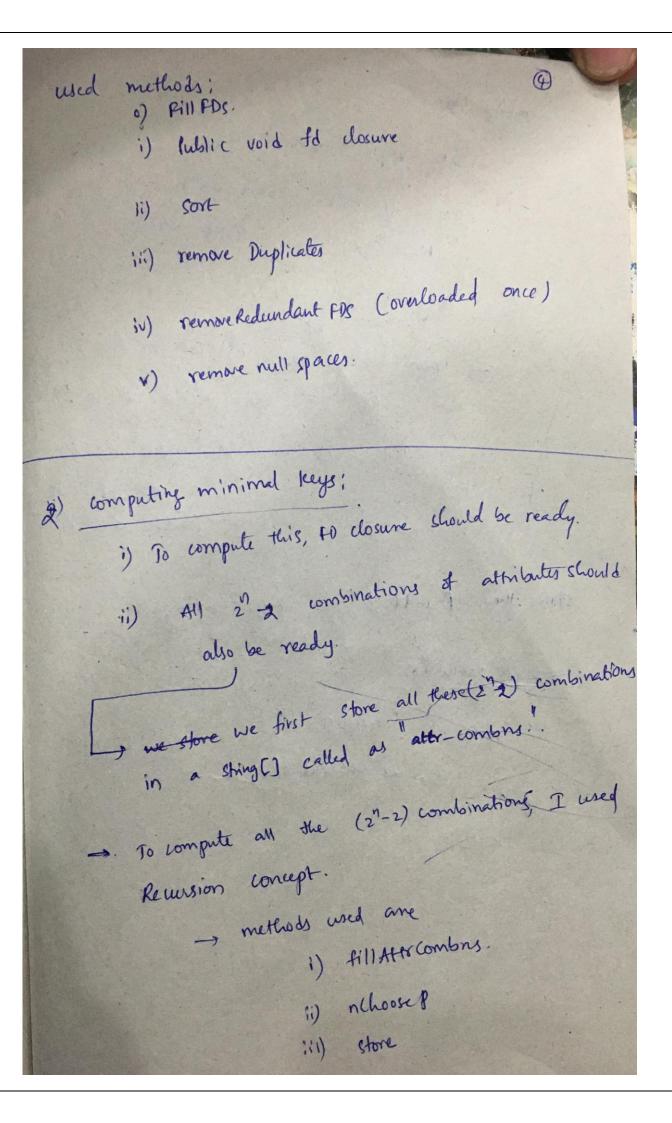
- I have divided the 1 work into 4 parts.
- i) computing FD closure
- ii) computing minimal keys.
- iii) computing Normal Form of each FD.
- iv) Decomposing.
- v) Testing to Dependency preserving.

h'c

ik, ikz, ikz, ikz are anyways useless.

->. In order to understand now it works, PTO.





- computing tays.

- Take every combination

- Take appropriate combination from "attr\_lombns" & check whether it is a

Key-

- Don't check for all combinations. ie, it as is already a key then checking for ABC, ABD, ABUT is waste of time

store the found bys in "keys" array.

used methods;

- i) fillkeylist
- 11) get Combination ()

iii) computing Normal Form of Each FD; (6) Basically Every FD belong to any of the following 9 lases (Assuming only one of attribute on RHS): key -> key (BCNF) ( He let us say both are keys) Eg: 46 -> CO key - Another Key's Attribute (BCNF) 3 2 keys AB, DE & AB -> D. key -> Non key attribute (BLNF) Vii) iv) kyattribute -> key Impossible case. because if keyathibatis Eg: 3 areys -AB then that keyattr becomes key

v) keyathibute -> keyathibute (3NF)

3

Eg: 7 2 keys i) ABC

ii) DE

E -> C

vi) keyattribute - non keyattribute (INF)

Egi 3 a bay AB.

ASC

vii) non-keyathibute -> key (impossible case).

viii) non-keyattribute -> key attribute (3NF).

Eg: 3 a key ABC

D - B

ix), non kujattibuti -, non kuj attributie (ZNP),

In order to calculate NF, take a FD, & scan it for the above 9 cases can & find out the Normal Form. & put it in nf-list[]

Note: out of 9,

- 2 impossible

1 2NF care -> can be decomposed to BENF

- 1 INF CONCT

- 2 3NF cases s.

v) can't be duringosed with

dependency preserving

ie, this is final

viii) can be brought to BCNF. by dumposition,

7. 3 BLNF.

used methods;

i) fill NFList()

ii) is Akey()

(ii) icAkey Attribute()

V) iv) Decomposing; - From the above NF, - decompose. eused methods; -> decomposerel() - complete formalities () Lo To compute keys + Ap For newly formed 1) Testing for Dependency preserving; i) Take FD closures from all the decomposed by and store in a temporary shirt! ii) calculate FD closure. iii) count the number of FDS from MANN & Gradiases iv) compare every PD. used method; i) calendate FU closure from Decomposed And Comparewith Original()

