



# Quiz 5 – 2%

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## - Employee Table

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```
CREATE TABLE Employee
(
  fname          VARCHAR2(15)          NOT NULL
, minit         CHAR
, lname         VARCHAR2(15)          NOT NULL
, ssn           CHAR(9)
, bdate        DATE
, address       VARCHAR2(50)
, sex           CHAR
, salary        NUMBER(10,2)          NOT NULL
, Superssn     CHAR(9)
, dno           NUMBER(3)              NOT NULL
, CONSTRAINT employee_ssn_pk PRIMARY KEY(ssn)
);
```



## - Assumptions

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- VARCHAR2(n) takes n bytes
- DATE takes 7 bytes
- NUMBER(n,m) takes n bytes
- Number(n) takes n bytes
- CHAR(n) takes n bytes
- Block address (pointer) takes 6 bytes
- Block overhead 0 bytes
- A disk block size is 1024 bytes
- Don't split a record between two blocks.



## - Questions

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- If the EMPLOYEE table has 100,000 rows (employees) and its is built using B+ tree, then
  - Approximately how many kilobytes is the EMPLOYEE table? Show your work.
  - What is the level of the B+ tree.
  - How many disk accesses will the following select statement need.  
**SELECT \* FROM employee WHERE ssn = '123456789';**
  - If a secondary index on the lname colum was created, what will be the size of this index?