

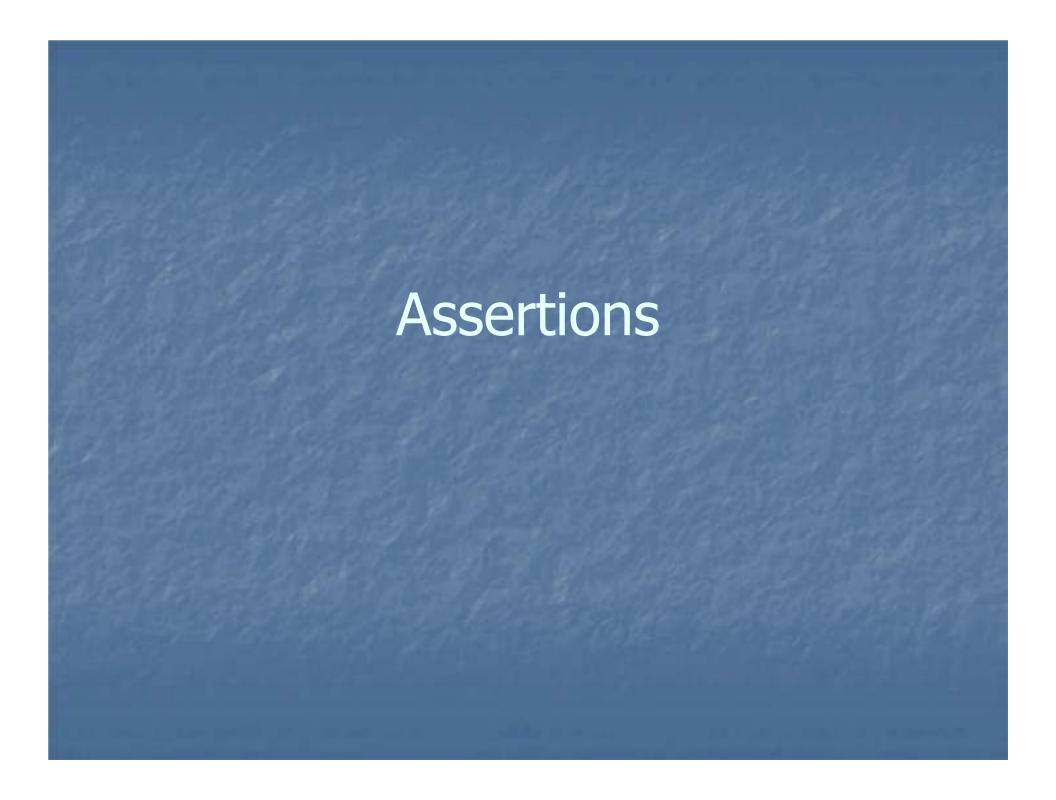
BITS, PILANI – K. K. BIRLA GOA CAMPUS

Database Systems (CSF212)

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Assertions

- An assertion is a predicate expressing a condition that we wish the database always to satisfy.
- An assertion in SQL takes the form

create assertion <assertion-name> check create>

- When an assertion is made, the system tests it for validity, and tests it again on every update that may violate the assertion.
 - This testing may introduce a significant amount of overhead; hence assertions should be used with great care.
- Asserting for all X, P(X) is achieved in a round-about fashion using not exists X such that not P(X)

Assertion Example

The sum of all loan amounts for each branch must be less than the sum of all account balances at the branch.

Assertion Example

Every loan has at least one borrower who maintains an account with a minimum balance or \$1000.00