ST. XAVIER’S COLLEGE

**(Affiliated to Tribhuvan University)**

Maitighar, Kathmandu



**Database Management System Assignment #8**

**Submitted by:**

Pratik Gautam  
013BSCCSIT029

**Submitted to:**

|  |  |
| --- | --- |
| Er. Sanjay Kumar Yadav Lecturer, St. Xavier’s College |  |

**4.2.1 Domain Type in SQL**

Use of domains is an effective aid to design and implement consistent databases. Domains insure that all attributes defined by a domain share the same data type and value constraints.

1. The SQL-92 standard supports a variety of built-in domain types:
   * **char**(n) (or **character**(n)): fixed-length character string, with user-specified length.
   * **varchar**(n) (or **character varying**): variable-length character string, with user-specified maximum length.
   * **int** or **integer**: an integer (length is machine-dependent).
   * **smallint**: a small integer (length is machine-dependent).
   * **numeric**(*p, d*): a fixed-point number with user-specified precision, consists of *p* digits (plus a sign) and *d* of *p* digits are to the right of the decimal point. E.g., **numeric**(*3, 1*) allows 44.5 to be stored exactly but not 444.5.
   * **real** or **double precision**: floating-point or double-precision floating-point numbers, with machine-dependent precision.
   * **float**(n): floating-point, with user-specified precision of at least *n* digits.
   * **date**: a calendar date, containing four digit year, month, and day of the month.
   * **time**: the time of the day in hours, minutes, and seconds.
2. SQL-92 allows arithmetic and comparison operations on various numeric domains, including, **interval** and *cast* (*type coercion*) such as transforming between *smallint* and *int*. It considers strings with different length are compatible types as well.
3. SQL-92 allows **create domain** statement, e.g.,

**create domain** *person-name* **char**(20)

## Schema Definition in SQL

A schema is a collection of database objects (as far as this hour is concerned—tables) associated with one particular database username. This username is called the schema owner, or the owner of the related group of objects. You may have one or multiple schemas in a database. Basically, any user who creates an object has just created his or her own schema. So, based on a user's privileges within the database, the user has control over objects that are created, manipulated, and deleted. A schema can consist of a single table and has no limits to the number of objects that it may contain, unless restricted by a specific database implementation.