**Available Software DB Description**

**SOFTWARE:**

The software table serves to store all information related to the software packages themselves. The table contains the following fields and justification:

**soft\_id:** (PK, INT, Auto-Incremented) – essentially self-explanatory. A unique id is required as this is the basis for our database design

* *Constraints:*
  + *References* ***soft\_id*** *in* ***software\_user***
  + *References* ***soft\_id*** *in* ***dept\_software***
  + *References* ***soft\_id*** *in* ***software\_platform***

**soft\_name:** (VARCHAR(45)) – Will store the name of the software I.E. Excel, Acrobat, SPSS, Inventor, AutoCAD, Illustrator, etc.

**soft\_company:** (VARCHAR(45)) – Stores name of software manufacturer I.E. Microsoft, Adobe, IBM, AutoDesk, etc.

**soft\_type:** (VARCHAR(45)) – Stores the “lane” the software belongs to I.E. Database, Operating System, FTP, Office Suite, Virus Protection, VPN, etc.

**soft\_price:** (DECIMAL(5,2)) – Stores software purchase price in decimal format, can be null for open source applications

* *Constraint:*
  + *CHECK (****soft\_price*** *>= 0)*

**soft\_description:** (TEXT) – Stores the description desired for page output

**soft\_download:** (VARCHAR(250)) – Stores descriptive method for downloading software, most likely links

**SOFT\_ALTERNATIVE:**

The table stores information for software alternatives to what the University provides / recommends.

**alt\_id**: (PK, INT, Auto-Incremented) – Unique alternative software ID

**alt\_name**: (VARCHAR(45)) – Stores name of alternative software package I.E. Google Sheets, Google Docs, Airtable, GIMP, etc.

**soft\_id:** (FK, References **software**) – Foreign key to relate alternatives to software

**SOFTWARE\_USER:**

The table serves as a bridge table between Users and Software. Stores eligibility and relating keys

**su\_id:** (PK, INT, Auto-Incremented) – Unique id

**su\_eligible**: (TINYINT(1)) – TINYINT serves as Boolean since mySQL doesn’t support Boolean data types. Either zero or one

**soft\_id:** (FK, INT) - Bridge table member identifier for **software** table FK/PK.

* *Constraint:*
  + *References* ***soft\_id*** *in* ***software*** *table*

**user\_id:** (FK, INT) – Bridge table member identifier for **user** table FK/PK.

* *Constraint:*
  + *References* ***user\_id*** *in* ***user*** *table*

**USER:**

Table serves to store user types: Student, Faculty, Staff, and ALL

**user\_id:** (PK, INT, Auto-Incremented) – Unique identifier for user types

**user\_type:** (VARCHAR (8)) – Stores the user type name. Limited to 8 characters: STUDENT

**SEARCH\_TERMS:**

Table serves to store relevant search terms for software packages I.E. “Spreadsheets, sheets, drawing, painting, statistics, word processor, etc.

**search\_id:** (PK, INT, Auto-Incremented) – Unique identifier for search terms contained in table.

**search\_term:** (VARCHAR (18)) – Stores a character strings associated with software packages.

**soft\_id:** (FK, INT)

* *Constraint:*
  + *References* ***soft\_id*** *in* ***software*** *table*

**DEPT\_SOFTWARE:**

Serves as bridge table between department and software tables

**dept\_soft\_id:** (PK, INT, Auto-Incremented) – Unique bridge table identifier

**dept\_id:** (FK, INT) – From department table

* *Constraint:*
  + *References* ***dept\_id*** *in* ***department*** *table*

**soft\_id:** (FK, INT) – From software table

* *Constraint:*
  + *References* ***soft\_id*** *in* ***software*** *table*

**DEPARTMENT:**

Table simply stores the department name

**dept\_id:** (PK, INT, Auto-Incremented) – Unique identifier for each university department

**dept\_name:** (VARCHAR (75)) – Stores character strings associated with University Department name.

**SOFTWARE\_PLATFORM:**

Bridge table for software and operating\_system tables

**soft\_plat\_id:** (PK, INT, Auto-Incremented) – Unique bridge table ID

**os\_id:** (FK, INT) From operating\_system table

* *Constraint:*
  + *References* ***os\_id*** *in* ***operating\_system*** *table*

**soft\_id:** (FK, INT) From software table

* *Constraint:*
  + *References* ***soft\_id*** *in* ***software*** *table*

**OPERATING\_SYSTEM:**

Table serves to store common operating systems associated with available software

**os\_id:** (PK, INT, Auto-Incremented) – Unique OS id

**os\_name:** (VARCHAR (25)) – Stores character string for operating system I.E. Windows 10, MacOSX Catalina, Linux, etc.