Conestoga College – SET

**Database Design Specification**

Milestone 01

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# Database Schema Diagram

## EMS-PSS Database Entity Relationship Diagram

# Database Schema Tables: Audit & User

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| --- | --- | --- | --- | --- | --- | --- | --- |
| *Database Schema Table 01* |  |  |  |  |  |  |  |
| Table: | **Audit Table** | | | | | | |
| *Description:* | *The Audit Table keeps track of and contains all employee record changes and additions. The Audit Table will keep track of the user that performed the change along with the element that was changed, date and time it was changed and the new and previous data.* | | | | | | |
| Column | Type | Comments | | | | | |
| Audit\_ID | *INT* | *Primary Key, auto incremented* | | | | | |
| User\_ID | *INT* | *Foreign Key, unique user identifier* | | | | | |
| Social\_Insurance\_Number | *VARCHAR(10)* | *Foreign Key, unique employee number* | | | | | |
| Date\_Edited | *VARCHAR(10)* | *Date when the employee attribute(s) was edited* | | | | | |
| Action\_Commited | *VARCHAR(20)* | *Action committed on an employee record* | | | | | |
| Attribute | *VARCHAR(30)* | *Attribute affected* | | | | | |
| Current\_Value | *VARCHAR(10)* | *Current value of attribute* | | | | | |
| Previous\_Value | *VARCHAR(10)* | *Previous value of attribute* | | | | | |

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| *Database Schema Table 02* |  |  |  |  |  |  |  |
| Table: | **User Table** | | | | | | |
| *Description:* | *The User Table will keep track of and contain all EMS-PSS General and Administrative users’ information including their name, user identification and security access level.* | | | | | | |
| Column | Type | Comments | | | | | |
| User\_ID | *INT* | *Primary Key, auto incremented* | | | | | |
| First\_Name | *VARCHAR(50)* | *Given name of system user* | | | | | |
| Last\_Name | *VARCHAR(50)* | *Family name of system user* | | | | | |
| Security\_Level | *VARCHAR(20)* | *Security level of user (General, Administrator)* | | | | | |

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| *Database Schema Table 03* |  |  |  |  |  |  |  |
| Table: | **Company Table** | | | | | | |
| *Description:* | *The Company Table keeps track of and contains all Company specific information including the companies name, date of incorporation, City and Country of headquarters* | | | | | | |
| Column | Type | Comments | | | | | |
| Company\_ID | *INT* | *Primary Key, auto incremented* | | | | | |
| Company\_Name | *VARCHAR(50)* | *Name of the company* | | | | | |
| City\_Headquarters | *VARCHAR(50)* | *Name of city where company's headquarters resides* | | | | | |
| Country\_Headquarters | *VARCHAR(50)* | *Name of country where company's headquarters resides* | | | | | |
| Date\_Of\_Incorporation | *VARCHAR(10)* | *Date when company was established* | | | | | |

# Database Schema Tables: Company & Fulltime Employee

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| *Database Schema Table 04* |  |  |  |  |  |  |  |
| Table: | **Fulltime Employee Table** | | | | | | |
| *Description:* | *The Fulltime Employee Table keeps track of and contains all Fulltime Employees and their names, company of employment, SIN, date of birth, date of hire, date of termination, and salary.* | | | | | | |
| Column | Type | Comments | | | | | |
| First\_Name | *VARCHAR(50)* | *Given name of employee* | | | | | |
| Last\_Name | *VARCHAR(50)* | *Family name of employee* | | | | | |
| Social\_Insurance\_Number | *VARCHAR(10)* | *Primary Key, unique employee number* | | | | | |
| Employed\_With\_Company | *VARCHAR(50)* | *Foreign Key, company name employee is employed with* | | | | | |
| Date\_Of\_Birth | *VARCHAR(10)* | *Date employee was born* | | | | | |
| Date\_Of\_Hire | *VARCHAR(10)* | *Date employee was hired* | | | | | |
| Date\_Of\_Termination | *VARCHAR(10)* | *Date employee was terminated* | | | | | |
| Reason\_For\_Leaving | *nVARCHAR* | *Reason employee left company* | | | | | |
| Salary | *FLOAT* | *Employees yearly employment* | | | | | |
| Status | *BIT* | *Employee is Active or Inactive* | | | | | |
| Completion | *BIT* | *Employee attributes Completed or Not-Completed* | | | | | |

# Database Schema Tables: Parttime Employee & Contract Employee

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| *Database Schema Table 05* |  |  |  |  |  |  |  |
| Table: | **Part-time Employee Table** | | | | | | |
| *Description:* | *The Part-time Employee Table keeps track of and contains all Part-time Employees and their names, company of employment, SIN, date of birth, date of hire, date of termination, and hourly rate.* | | | | | | |
| Column | Type | Comments | | | | | |
| First\_Name | *VARCHAR(50)* | *Given name of employee* | | | | | |
| Last\_Name | *VARCHAR(50)* | *Family name of employee* | | | | | |
| Social\_Insurance\_Number | *VARCHAR(10)* | *Primary Key, unique employment number* | | | | | |
| Employed\_With\_Company | *VARCHAR(50)* | *Foreign Key, company name employee is employed with* | | | | | |
| Date\_Of\_Birth | *VARCHAR(10)* | *Date employee was born* | | | | | |
| Date\_Of\_Hire | *VARCHAR(10)* | *Date employee was hired* | | | | | |
| Date\_Of\_Termination | *VARCHAR(10)* | *Date employee was terminated* | | | | | |
| Reason\_For\_Leaving | *nVARCHAR* | *Reason employee left company* | | | | | |
| Hourly\_Rate | *FLOAT* | *Employees hourly payment rate* | | | | | |
| Status | *BIT* | *Employee is Active or Inactive* | | | | | |

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| *Database Schema Table 06* |  |  |  |  |  |  |  |
| Table: | **Contract Employee Table** | | | | | | |
| *Description:* | *The Contract Employee Table keeps track of and contains all Contract Employees and their names, company of employment, SIN, date of birth, contract start date, contract stop date, and fixed contract amount.* | | | | | | |
| Column | Type | Comments | | | | | |
| First\_Name | *VARCHAR(50)* | *Given name of employee* | | | | | |
| Last\_Name | *VARCHAR(50)* | *Family name of employee* | | | | | |
| Social\_Insurance\_Number | *VARCHAR(10)* | *Primary Key, unique employment number* | | | | | |
| Employed\_With\_Company | *VARCHAR(50)* | *Foreign Key, company name employee is employed with* | | | | | |
| Date\_Of\_Birth | *VARCHAR(10)* | *Incorporation date of employees company* | | | | | |
| Contract\_Start\_Date | *VARCHAR(10)* | *Date employee started contract position* | | | | | |
| Contract\_Stop\_Date | *VARCHAR(10)* | *Date employees contract position ends* | | | | | |
| Reason\_For\_Leaving | *nVARCHAR* | *Reason employee left company* | | | | | |
| Fixed\_Contract\_Amount | *FLOAT* | *Employees fixed contract amount* | | | | | |
| Status | *BIT* | *Employee is Active or Inactive* | | | | | |
| Completion | *BIT* | *Employee attributes Completed or Not-Completed* | | | | | |

# Database Schema Tables: Seasonal Employee & Time-Card

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| *Database Schema Table 07* |  |  |  |  |  |  |  |
| Table: | **Seasonal Employee Table** | | | | | | |
| *Description:* | *The Seasonal Employee Table keeps track of and contains all Seasonal Employees and their names, company of employment, SIN, date of birth, seasonYear, season, and piece pay.* | | | | | | |
| Column | Type | Comments | | | | | |
| First\_Name | *VARCHAR(50)* | *Given name of employee* | | | | | |
| Last\_Name | *VARCHAR(50)* | *Family name of employee* | | | | | |
| Social\_Insurance\_Number | *VARCHAR(10)* | *Primary Key, unique employment number* | | | | | |
| Employed\_With\_Company | *VARCHAR(50)* | *Foreign Key, company name employee is employed with* | | | | | |
| Date\_Of\_Birth | *VARCHAR(10)* | *Date employee was born* | | | | | |
| Season | *VARCHAR(10)* | *Season employee worked for company* | | | | | |
| Season\_Year | *VARCHAR(10)* | *Year employee worked for company* | | | | | |
| Reason\_For\_Leaving | *nVARCHAR* | *Reason employee left company* | | | | | |
| Piece\_Pay | *FLOAT* | *Employees per piece payment rate* | | | | | |
| Status | *BIT* | *Employee is Active or Inactive* | | | | | |
| Completion | *BIT* | *Employee attributes Completed or Not-Completed* | | | | | |

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| *Database Schema Table 08* |  |  |  |  |  |  |  |
| Table: | **Time-Card Table** | | | | | | |
| *Description:* | *The Time-Card Table will keep track of and contain all hours worked by all Employees except Contract Employees. Hours for each day of the week will be captured* | | | | | | |
| Column | Type | Comments | | | | | |
| Card\_ID | *INT* | *Primary Key, auto incremented* | | | | | |
| Company\_Name | *VARCHAR(50)* | *Name of the employees company* | | | | | |
| First\_Name | *VARCHAR(50)* | *Given name of employee* | | | | | |
| Last\_Name | *VARCHAR(50)* | *Family name of employee* | | | | | |
| Employee\_Type | *VARCHAR(10)* | *Type of employee* | | | | | |
| Pay\_Week | *VARCHAR(30)* | *Current pay week (start and end date)* | | | | | |
| Monday | *FLOAT* | *Amount of hours worked on Monday* | | | | | |
| Tuesday | *FLOAT* | *Amount of hours worked on Tuesday* | | | | | |
| Thursday | *FLOAT* | *Amount of hours worked on Thursday* | | | | | |
| Friday | *FLOAT* | *Amount of hours worked on Friday* | | | | | |
| Saturday | *FLOAT* | *Amount of hours worked on Saturday* | | | | | |
| Sunday | *FLOAT* | *Amount of hours worked on Sunday* | | | | | |

# Database Schema Tables: Piece

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| *Database Schema Table 09* |  |  |  |  |  |  |  |
| Table: | **Piece\_Table** | | | | | | |
| *Description:* | *The Piece Table keeps track of and contains all Seasonal Employees piece amounts made on a daily basis.* | | | | | | |
| Column | Type | Comments | | | | | |
| Card\_ID | *INT* | *Primary Key* | | | | | |
| Monday | *FLOAT* | *Amount of pieces made on Monday* | | | | | |
| Tuesday | *FLOAT* | *Amount of pieces made on Tuesday* | | | | | |
| Thursday | *FLOAT* | *Amount of pieces made on Thursday* | | | | | |
| Friday | *FLOAT* | *Amount of pieces made on Friday* | | | | | |
| Saturday | *FLOAT* | *Amount of pieces made on Saturday* | | | | | |
| Sunday | *FLOAT* | *Amount of pieces made on Sunday* | | | | | |