Data Dictionary

# **Tables**

## tblEmployees

1. Table Description: Lists each employee at ITS SDSU that will handle the tools and consumables. Each employee has their following information listed in the columns.
2. Columns:
   1. **RedID**: SDSU student and faculty identification number. SDSU students who are employed at ITS will have this unique identification.
   2. **FirstName**: The first name of the SDSU student or faculty member.
   3. **LastName**: The last name of the SDSU student or faculty member.
   4. **SupervisorID**: This is the RedID of the supervisor of the employee. The SupervisorID can reference this table to see the supervisor’s employee information.
   5. **CallSign**: This is a roll call number for employees when communicating through walkie talkies. This is easier to write down or say versus using the RedID.
   6. **EmploymentStatus**: Lists the employment status of the employee (either “Employed” or “Unemployed”).
   7. **Team**: Some employees work together in teams that have their own team name.

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| **Column** | **Data Type** | **Range of Values** | **Default Value** | **Primary Key Constraints** | **Foreign Key Constraints** | **Unique Constraints** | **Not Null Constraints** |
| RedID | INT | N/A | N/A | Yes | N/A | Yes | Yes |
| FirstName | VARCHAR(50) | N/A | N/A | N/A | N/A | N/A | N/A |
| LastName | VARCHAR(50) | N/A | N/A | N/A | N/A | N/A | N/A |
| SupervisorID | INT | N/A | N/A | N/A | Yes | N/A | N/A |
| CallSign | INT | N/A | N/A | N/A | N/A | N/A | N/A |
| EmploymentStatus | VARCHAR(50) | N/A | N/A | N/A | N/A | N/A | N/A |
| Team | VARCHAR(50) | N/A | N/A | N/A | N/A | N/A | N/A |

## **tblVendors**

1. Table Description: Lists each vendor that ITS SDSU orders from.
2. Columns:
   1. **VendorID**: A unique identifier for each vendor.
   2. **VendorName**: The name of the vendor.
   3. **VendorNumber**: Phone number of the vendor to contact for any questions.
   4. **VendorAddress**: The address of the vendor. It helps identify where orders will be coming from.

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| **Column** | **Data Type** | **Range of Values** | **Default Value** | **Primary Key Constraints** | **Foreign Key Constraints** | **Unique Constraints** | **Not Null Constraints** |
| VendorID | INT | N/A | N/A | Yes | N/A | Yes | Yes |
| VendorName | VARCHAR(50) | N/A | N/A | N/A | N/A | N/A | N/A |
| VendorPhone | VARCHAR(24) | N/A | N/A | N/A | N/A | N/A | N/A |
| VendorAddress | VARCHAR(256) | N/A | N/A | N/A | N/A | N/A | N/A |

## tblConsumableInventory

1. Table Description: Lists the current inventory of each consumable item at ITS SDSU.
2. Columns:
   1. **ConsumableID**: A unique identifier for each consumable item.
   2. **ConsumableName**: The name of the consumable item.
   3. **ConsumableDescription**: A description of the consumable item.
   4. **ConsumableQuantity**: Lists the quantity of the consumable item at ITS SDSU.

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| **Column** | **Data Type** | **Range of Values** | **Default Value** | **Primary Key Constraints** | **Foreign Key Constraints** | **Unique Constraints** | **Not Null Constraints** |
| ConsumableID | INT | N/A | N/A | Yes | N/A | Yes | Yes |
| ConsumableName | VARCHAR(50) | N/A | N/A | N/A | N/A | N/A | N/A |
| ConsumableDescription | VARCHAR(256) | N/A | N/A | N/A | N/A | N/A | N/A |
| ConsumableQuantity | INT | N/A | N/A | N/A | N/A | N/A | N/A |

## tblConsumableLogs

1. Table Description: Lists the logs of consumable items that are checked out and returned.
2. Columns:
   1. **RedID**: SDSU student and faculty identification number. SDSU students who are employed at ITS will have this unique identification.
   2. **ConsumableID**: A unique identifier for each consumable item.
   3. **TakeDateTime**: The date and time of when the consumable was taken or returned.
   4. **NumTaken**: The number of consumables that were taken. If only consumables are returned, this value would be zero.
   5. **NumReturned**: The number of consumables that are returned back.

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Column** | **Data Type** | **Range of Values** | **Default Value** | **Primary Key Constraints** | **Foreign Key Constraints** | **Unique Constraints** | **Not Null Constraints** |
| RedID | INT | N/A | N/A | Yes | Yes | Yes | Yes |
| ConsumableID | INT | N/A | N/A | Yes | Yes | Yes | Yes |
| TakeDateTime | DATETIME | N/A | N/A | N/A | N/A | N/A | N/A |
| NumTaken | INT | N/A | N/A | N/A | N/A | N/A | Yes |
| NumReturned | INT | N/A | N/A | N/A | N/A | N/A | N/A |

## tblTools

1. Table Description: Lists each tool at ITS SDSU.
2. Columns:
   1. **ToolID**: A unique identifier for each tool.
   2. **ToolName**: The name of the tool.
   3. **Tool Description**: A description of the tool.
   4. **VendorID**: A unique identifier for each vendor.

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| **Column** | **Data Type** | **Range of Values** | **Default Value** | **Primary Key Constraints** | **Foreign Key Constraints** | **Unique Constraints** | **Not Null Constraints** |
| ToolID | INT | N/A | N/A | Yes | N/A | Yes | Yes |
| ToolName | VARCHAR(128) | N/A | N/A | N/A | N/A | N/A | N/A |
| ToolDescription | VARCHAR(256) | N/A | N/A | N/A | N/A | N/A | N/A |
| VendorID | INT | N/A | N/A | N/A | Yes | N/A | Yes |

## tblManifestItems

1. Table Description: Lists the consumable items that are received and listed from each shipping manifest.
2. Columns:
   1. **ConsumableID**: A unique identifier for each consumable item.
   2. **VendorID**: A unique identifier for each vendor.
   3. **ItemDescription**: The description of the items listed in the shipping manifests.
   4. **ManifestQuantity**: List the items received from that shipping manifest.
   5. **ManifestID**: Refer to a particular shipping manifest.

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| **Column** | **Data Type** | **Range of Values** | **Default Value** | **Primary Key Constraints** | **Foreign Key Constraints** | **Unique Constraints** | **Not Null Constraints** |
| ConsumerID | INT | N/A | N/A | Yes | Yes | Yes | Yes |
| VendorID | INT | N/A | N/A | Yes | Yes | Yes | Yes |
| ItemDescription | VARCHAR(250) | N/A | N/A | N/A | N/A | N/A | N/A |
| ManifestQuantity | INT | N/A | N/A | N/A | N/A | N/A | N/A |
| ManifestID | INT | N/A | N/A | N/A | Yes | N/A | Yes |

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## tblToolLogs

1. Table Description: Lists the logs of tools that are checked out and returned.
2. Columns:
   1. **RedID**: SDSU student and faculty identification number. SDSU students who are employed at ITS will have this unique identification.
   2. **ToolID**: A unique identifier for each tool.
   3. **CheckOutDateTime**: The check out date and time of each tool. When returning the tool, the check out date and time still needs to be recorded for reference.
   4. **CheckInDateTime**: The check in date and time of each tool.
   5. **ServiceTicketID**: Refers to an assigned project from an external source (ServiceNow database).

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| **Column** | **Data Type** | **Range of Values** | **Default Value** | **Primary Key Constraints** | **Foreign Key Constraints** | **Unique Constraints** | **Not Null Constraints** |
| RedID | INT | N/A | N/A | Yes | Yes | Yes | Yes |
| ToolID | INT | N/A | N/A | Yes | Yes | Yes | Yes |
| CheckOutDateTime | DATETIME | N/A | N/A | Yes | N/A | Yes | Yes |
| CheckInDateTime | DATETIME | N/A | N/A | N/A | N/A | N/A | N/A |
| ServiceTicketID | INT | N/A | N/A | N/A | N/A | N/A | N/A |

## tblShippingManifest

1. Table Description: Lists each shipping manifest from a vendor.
2. Columns:
   1. **ManifestID**: A unique identifier for each consumable item.
   2. **OrderNumber**: A unique identifier for each vendor.
   3. **ShippingDate**: The date when the items were shipped. It should be listed in the shipping manifest.
   4. **VendorID**: A unique identifier for each vendor.

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| **Column** | **Data Type** | **Range of Values** | **Default Value** | **Primary Key Constraints** | **Foreign Key Constraints** | **Unique Constraints** | **Not Null Constraints** |
| ManifestID | INT | N/A | N/A | Yes | N/A | Yes | Yes |
| OrderNumber | VARCHAR(50) | N/A | N/A | N/A | N/A | N/A | N/A |
| ShippingDate | DATE | N/A | N/A | N/A | N/A | N/A | N/A |
| VendorID | INT | N/A | N/A | N/A | Yes | N/A | Yes |

# **Indexes**

## ndx\_tblEmployees\_FirstName

* Table: tblEmployees
* Column: FirstName
* Purpose: To speed up queries regarding the first name of the employee. It will be faster to query who checked out a particular tool or consumable.

## ndx\_tblEmployees\_LastName

* Table: tblEmployees
* Column: FirstName
* Purpose: To speed up queries regarding the last name of the employee. It will be faster to query who checked out a particular tool or consumable.

## ndx\_tblTools\_ToolName

* Table: tblTools
* Column: ToolName
* Purpose: To speed up queries regarding tool names. It will be faster to query which tool was checked out or is available.

## ndx\_tblVendors\_VendorName

* Table: tblVendor
* Column: VendorName
* Purpose: To speed up queries regarding vendor names. It will be faster to query which tool or consumable was ordered from a particular vendor.

## ndx\_tblConsumableInventory\_ConsumableName

* Table: tblConsumableInventory
* Column: ConsumableName
* Purpose: To speed up queries regarding the names of consumable items. It will be faster to query which consumable was used.