# 7 Appendix

The following section provides additional, detailed information related to the Test Framework Application and the Test Server Database including minimum hardware and software requirements needed to run the application and an overview of the database architecture.

# 7.1 Hardware Requirements

Running the Test Framework Application in Local Mode requires the following minimum hardware components:

* Processor: 1 gigahertz (GHz) or faster processor
* RAM: 2GB for both 32-bit and 64-bit
* Hard disk space: 16GB
* Graphics card: DirectX 9 or later with WDDM 1.0 driver
* Display: 800-by-600 resolution

Additionally, to run the application in Remote Mode will require an Ethernet Card and an Internet Connection with download/upload speeds of at least 1mbps.

# 7.2 Software Requirements

Running the Test Framework Application in Local Mode requires the following minimum software installed:

* Operating System: Windows 8 or later (32bit or 64bit OS)

# 7.3 Database Specification

The Test Framework will rely on a relational database system (RDBMS) for a number of purposes and functions as summarized in the following table:

| **Function** | **Description** | **Visibility** |
| --- | --- | --- |
| **System** | Persistent system data, logs and meta information, e.g. tracking users registering machines, storing user permissions, storing historical test metadata | Not user visible |
| **Content** | Test run content and results | User visible |
| **Privileged Identify Management (PIM)** | User profile information, permission levels and location data | User visible |

The Test Server Database shall be configured to store test system data for each test system and corresponding test configuration, test cases and test execution results. Reads and writes to the database will be primarily triggered by user-driven events such as running a test, viewing test results and registering or de-registering a machine to the test server.

The Test Server Database schema shall adhere to a typical star/snowflake format consisting of a central fact table and multiple dimension and lookup tables. To the extent possible, data should be normalized and indexed to allow for optimal performance as the data size grows.

**ERD for the Test Server Database**

A screenshot of a cell phone

Description automatically generated

**Schema**

The Test Server Database Schema is organized by content functionality. The table names listed below should be considered as "Test Server Database reserved words" when creating or modifying the schema.

The main tables\* and their purpose are listed here:

| **Table** | **Description** |
| --- | --- |
| **Content Functions** |  |
| TestRun | Primary fact table that contains transactional data associated with each test run available to the system. It contains foreign keys to allow for lookups to the dimensional tables. |
| TestEngine | Contains data related to the test engine and whether is registered for remote use. |
| TestEngineConfig | Stores configuration meta-data associated with registered test engines. |
| TestCase | Paths for file-based test case content associated to a particular user and test engine. |
| TestResult | Paths for file-based test case content associated to a particular user and test engine. |
| UserConfig | Stores role information for users registered with the test server |
| DesktopUI | Stores information about local users’ test engines which have been registered for remote use. |
| WebUI | Stores information about remote users’ login status and test engines which have been selected for remote use. |

\*This is not an exhaustive list of all possible tables in the system; additional temporary tables may be added as needed to process data and perform certain functions.