**Criteria provided by the Boss**

**Simplicity of Setup**

Very simple, fast solution that doesn’t need a lot of setup or special hardware/software to get going

Importance: **4**

**Low Cost**

Cost is of utmost importance during this first phase of this project

Importance: **5**

**Cross-Platform Compatibility**

Cross platform but doesn’t require any special network access

Importance: **4**

**Single User Access**

For the feasibility phase, only one user will be accessing the database from their computer

Importance: **4**

**Backup Ease**

Easy to backup to a usb stick so it can be copied from one computer to another

Importance: **5**

**Python Compatibility**

Python Compatibility - Needs to be compatible with Python

Importance: **5**

*It’s ok if the database backend is replaced with something else in later phases, once all the requirements have been worked out.*

**Database/Feature Scoring**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Features | MYSQL | Oracle | SQLite | MySQL (or MariaDB) | PostgreSQL | Microsoft Access | LibreOffice Base |
| Simplicity of Setup (**4**) | 3 | 2 | 5 | 4 | 4 | 5 | 5 |
| Low Cost (**5**) | 1 | 1 | 2 | 5 | 5 | 4 | 5 |
| Cross-Platform Compatibility (**4**) | 3 | 4 | 5 | 4 | 4 | 1 | 4 |
| Single User Access (**4**) | 3 | 3 | 5 | 4 | 4 | 5 | 5 |
| Backup Ease (**5**) | 3 | 1 | 5 | 3 | 3 | 5 | 4 |
| Python Compatibility (**5**) | 4 | 4 | 5 | 4 | 4 | 3 | 3 |

**Database/Feature Weight Calculations**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Features | MYSQL | Oracle | SQLite | MySQL (or MariaDB) | PostgreSQL | Microsoft Access | LibreOffice Base |
| Simplicity of Setup (**4**) | 3\***4** = 12 | 2\***4** = 8 | 5\***4** = 20 | 4\***4** = 16 | 4\***4** = 16 | 5\***4** = 20 | 5\***4** = 20 |
| Low Cost (**5**) | 1\***5** = 5 | 1\***5** = 5 | 2\***5** = 10 | 5\***5** = 25 | 5\***5** = 25 | 4\***5** = 20 | 5\***5** = 25 |
| Cross-Platform Compatibility (**4**) | 3\***4** = 12 | 4\***4** = 16 | 5\***4** = 20 | 4\***4** = 16 | 4\***4** = 16 | 1\***4** = 4 | 4\***4** = 16 |
| Single User Access (**4**) | 3\***4** = 12 | 3\***4** = 12 | 5\***4** = 20 | 4\***4** = 16 | 4\***4** = 16 | 5\***4** = 20 | 5\***4** = 20 |
| Backup Ease (**5**) | 3\***5** = 15 | 1\***5** = 5 | 5\***5** = 25 | 3\***5** = 15 | 3\***5** = 15 | 5\***5** = 25 | 4\***5** = 20 |
| Python Compatibility (**5**) | 4\***5** = 20 | 4\***5** = 20 | 5\***5** = 25 | 4\***5** = 20 | 4\***5** = 20 | 3\***5** = 15 | 3\***5** = 15 |
| TOTAL | 76 | 66 | 120 | 108 | 108 | 104 | 116 |

**Conclusion**

Based on the criteria provided by the boss, SQLite would be the best suited database for this project overall, while noting there being a cost associated with SQLite. I would also present the follow up contender, informing the boss that LibreOffice Base better meets her needs in terms of low costs, however, there is a trade off when it comes to Python Compatibility: as connecting Python directly to databases in LibreOffice Base depends on the database engine.