Bosses Directions

Your boss calls you into a meeting. She tells you about a new project that is about to begin. It needs a database back-end, and she would like you to do some research to figure out which database is the best solution. She says that the first phase of the project is just to test feasibility, ***so they need a very simple, fast solution that doesn’t need a lot of setup or special hardware/software to get going. It needs to be cross platform but doesn’t require any special network access***. She says for the feasibility phase, **only one user will be accessing the database from their computer**. She says **it needs to be easy to back up to a usb stick** so it can be copied from one computer to another. ***Cost is of utmost importance during this first phase of this project***. It’s ok if the database backend is replaced with something else in later phases, once all the requirements have been worked out. Oh, and one last thing, ***it needs to be compatible with Python*** since that’s what will be used throughout this project.

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Features  Rank 0-5 | *MSSQL*  Rate 0-5 | Oracle  Rate 0-5 | SQLite  Rate 0-5 | MySQL (or MariaDB) | PostgreSQL  Rate 0-5 | Microsoft Access  Rate 0-5 | LibreOffice Base  Rate 0-5 |
| Easy setup (4) | 2 | 1 | 5 | 3 | 4 | 3 | 3 |
| Cross Platform (3) | 1 | 1 | 5 | 4 | 4 | 1 | 5 |
| Single user access (2) | 3 | 3 | 5 | 3 | 3 | 5 | 5 |
| Easy Backup (4) | 2 | 1 | 5 | 3 | 4 | 3 | 3 |
| Low Cost (5) | 1 | 1 | 5 | 4 | 4 | 3 | 5 |
| Compatibility w/ Python (5) | 3 | 3 | 5 | 5 | 5 | 1 | 1 |

The reason why I set my weights for each criterion is because: We need an easy to setup database that’s cost efficient, it will most likely be replaced later. It requires compatibility with other platforms and python which is the language that we will use.

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| --- | --- | --- | --- | --- | --- | --- | --- |
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| Easy setup (4) | 2 \* 4 = 8 | 1 \* 4 = 4 | 5 \* 4 = 20 | 3 \* 4 = 12 | 4 \* 4 = 16 | 3 \* 4 = 12 | 3 \* 4 = 12 |
| Cross Platform (3) | 1 \* 3 = 3 | 1 \* 3 = 3 | 5 \* 3 = 15 | 4 \* 3 = 12 | 4 \* 3 = 12 | 1 \* 3 = 3 | 5 \* 3 = 15 |
| Single user access (2) | 3 \* 2 = 6 | 3 \* 2 = 6 | 5 \* 2 = 10 | 3 \* 2 = 6 | 3 \* 2 = 6 | 5 \* 2 = 10 | 5 \* 2 = 10 |
| Easy Backup (4) | 2 \* 4 = 8 | 1 \* 4 = 4 | 5 \* 4 = 20 | 3 \* 4 = 12 | 4 \* 4 = 16 | 3 \* 4 = 12 | 3 \* 4 = 12 |
| Low Cost (5) | 1 \* 5 = 5 | 1 \* 5 = 5 | 5 \* 5 = 25 | 4 \* 5 = 20 | 4 \* 5 = 20 | 3 \* 5 = 15 | 5 \* 5 = 25 |
| Compatibility w/ Python (5) | 3 \* 5 = 15 | 3 \* 5 = 15 | 5 \* 5 = 25 | 5 \* 5 = 25 | 5 \* 5 = 25 | 1 \* 5 = 5 | 1 \* 5 = 5 |
| Total | 45 | 37 | 115 | 87 | 95 | 57 | 79 |

My recommendation based off the results are SQLite with PostgreSQL and MySQL (or MariaDB) following a close 2nd and 3rd. They seem to be the best scoring in the requirements that our boss has given us, with SQLite having the best score.