**PROJECT NAME: SUBTRACK**

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| TASK # | PROJECT TASKS WHICH REQUIRE SOFTWARE TOOL SUPPORT |
| 1 | Database Management Systems (DBMS) for storing and managing user data. |
| 2 | Coding environment for C# and other packages and tools. |
| 3 | Version Control System for Collaborative Project Development. |

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| SOFTWARE TOOLS FOR TASK 1: |
| Tool Cost/Training/Functionality Data   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Tool | Azure SQL Database (SQL) | PostgreSQL (SQL – Azure Database for PostgreSQL) | Firebase Firestore (NoSQL) | MongoDB Atlas (NoSQL) | | Cost | $ 75 | $ 125 | $ 45 | $ 600 | | Training Days | 7 | 10 | 5 | 12 | | Functionality | 8 | 8 | 9 | 9 |   Normalized Cost/Training/Functionality Data   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Tool | Azure SQL Database (SQL) | PostgreSQL (SQL – Azure Database for PostgreSQL) | Firebase Firestore (NoSQL) | MongoDB Atlas (NoSQL) | | Cost | % 12.5 | % 20.83 | % **7.5** | % 100 | | Training Days | 58.33 | 83.33 | **41.67** | 100 | | Functionality | 88.9 | 88.9 | **100** | 100 | |
| Because we place a high premium on user security, we opt to use Azure SQL Database (SQL). We place a high priority on utilizing Microsoft services, and it works effectively with sites like GitHub. Even though it's not the least expensive option, going with a long-term solution up front is more economical than changing DBMS later. |

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| SOFTWARE TOOLS FOR TASK 2: |
| Tool Cost/Training/Functionality Data   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Tool | Rider | Visual Studio Enterprise | Visual Studio Code | SharpDevelop | | Cost | $ 150 | $ 250 | $ 0 | $ 0 | | Training Days | 8 | 10 | 5 | 6 | | Functionality | 9 | 10 | 7 | 5 |   Normalized Cost/Training/Functionality Data   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Tool | Rider | Visual Studio Enterprise | Visual Studio Code | SharpDevelop | | Cost | % 60 | % 100 | % **0** | % 0 | | Training Days | 80 | 100 | **50** | 60 | | Functionality | 90 | 100 | **70** | 50 | |
| Because Visual Studio Code is free and very flexible, we wish to utilize it as the Coding environment for our project. This enables us to add the required packages for our job and makes it cost-effective for us. The learning curve is also appropriate. |

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| SOFTWARE TOOLS FOR TASK 3: |
| Tool Cost/Training/Functionality Data   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Tool | GitHub | GitLab | Bitbucket | Azure DevOps | | Cost | $ 40 | $ 24 | $ 30 | $ 60 | | Training Days | 5 | 7 | 6 | 8 | | Functionality | 9 | 8 | 7 | 10 |   Normalized Cost/Training/Functionality Data   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Tool | GitHub | GitLab | Bitbucket | Azure DevOps | | Cost | % 66.67 | % 40 | % **50** | % 100 | | Training Days | 62.5 | 87.5 | **75** | 100 | | Functionality | 90 | 80 | **70** | 100 | |
| Since GitHub is a popular platform and employs Git for version control, we wish to adopt it as our VCS. Furthermore, we may avoid LFS expenses in the early phases of the project because it won't be needed for a long time. |