**PROJECT NAME: UniLearn**

**GROUP NUMBER and MEMBERS: Group – 1 / Mehmet Şakir Şeker, Demirkan Yıldız, Sarp Demirtaş, Sertan Unal, Melik Fırat Gültekin, Cavit Kaya**

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| TASK # | PROJECT TASKS WHICH REQUIRE SOFTWARE TOOL SUPPORT |
| 1 | Database: long term relaible, safe data storage. |
| 2 | UI Tools: for designing graphics of gui. |
| 3 | IDE: for implementation and testing. |

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| SOFTWARE TOOLS FOR TASK 1: DATABASE |
| Tool Cost/Training/Functionality Data   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Tool | Oracle Database | IBM  DB2 | Amazon RDS | Microsoft SQL Server | | Cost | $16,280 | $969 | $6,240 | $15,123 | | Training Days | 14 | 11 | 13 | 17 | | Functionality | 90 | 40 | 75 | 85 |   Normalized Cost/Training/Functionality Data   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Tool | Oracle Database | IBM  DB2 | Amazon RDS | Microsoft SQL Server | | Cost | 100 | 5.95 | 38.31 | 93.44 | | Training Days | 82.35 | 64.71 | 76.47 | 100 | | Functionality | 100 | 44.44 | 83.33 | 94.44 |   Normalized Tool Graph |
| Which tool has been selected? Why?  The selected tool for the project is Amazon RDS. This choice is made due to its scalability, high availability, managed service, and cost-effectiveness. For example, in our project aiming to provide an integrated online learning platform for university students, Amazon RDS is chosen to handle the database management efficiently. With the platform expected to scale rapidly as more universities and students join, Amazon RDS offers the flexibility to easily expand database resources as needed. Its high availability ensures uninterrupted access to course materials and student data. Additionally, as the project team may not have extensive experience in database management, Amazon RDS's managed service automates many tasks, reducing the need for manual intervention and allowing the team to focus on other aspects of the project. Lastly, Amazon RDS's cost-effective pricing model aligns well with the project's budget constraints, ensuring that resources are used efficiently. Overall, Amazon RDS emerges as the optimal choice for our project due to its comprehensive features and suitability for our specific requirements. |

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| SOFTWARE TOOLS FOR TASK 2: UI TOOLS |
| Tool Cost/Training/Functionality Data   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Tool | Adobe XD | Figma | Axure RP | Sketch | | Cost | 660$ | 540$ | 504$ | 120$ | | Training Days | 23 | 28 | 11 | 7 | | Functionality | 95 | 90 | 80 | 65 |   Normalized Cost/Training/Functionality Data   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Tool | Adobe XD | Figma | Axure RP | Sketch | | Cost | 100 | 81.81 | **76.36** | 18.20 | | Training Days | 82.14 | 100 | **39.28** | 25 | | Functionality | 100 | 85.5 | **76** | 61.75 |   Normalized Tool Graph |
| Which tool has been selected? Why?  The selected tool for the project is Figma. This decision was made because Figma offers a cloud-based platform that facilitates seamless collaboration among team members, ensuring concurrent work on the same project. Additionally, Figma's user-friendly interface and ease of learning curve expedite the team's adoption of the platform, enhancing productivity. For example, in our project, Figma allows our team to quickly iterate on UI designs, share prototypes, and gather feedback from stakeholders in real-time, ultimately streamlining the design process and ensuring alignment with project objectives. |

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| SOFTWARE TOOLS FOR TASK 3: Integrated Development Environments. |
| Tool Cost/Training/Functionality Data   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Tool | JetBrains  WebStorm | Atom | Visual Studio  Code | Sublime Text | | Cost | $1600 | $0 | $0 | $650 | | Training Days | 13 | 7 | 8 | 7 | | Functionality | 95 | 70 | 80 | 90 |   Normalized Cost/Training/Functionality Data   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Tool | JetBrains  WebStorm | Atom | Visual Studio  Code | Sublime Text | | Cost | 100 | 0 | 0 | 40,6 | | Training Days | 100 | 53,8 | 61,5 | 53,8 | | Functionality | 100 | 73,7 | 84,2 | 94,7 |   Normalized Tool Graph |
| Which tool has been selected? Why?  The selected IDE as a software tool for this project is Visual Studio Code. Our general approach was “cost > functionality” as importance. The reason for that is that other good IDEs for web site development like WebStorm or SublimeText are unnecessarily expensive. I didn't find any reason to give that much money for a little functionality difference. They are more functional. but not necessary. We have given two free apps, and we didn't select Atom because of its lower functionality. And Vscode’s popularity might be higher among developers. |