PROJECT NAME: MediShare

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TASK #	PROJECT TASKS WHICH REQUIRE SOFTWARE TOOL SUPPORT
1	User Interface and Illustration of Medicine Usage
2	Database Management
3	Analytics and Reporting
4	Live Support

We selected our tools based on their compatibility with Flutter and React Native. We chose Flutter and React Native because they are versatile across multiple platforms and have active communities.

| SOFTWARE TOOLS FOR TASK 1: User Interface and Illustration of Medicine Usage			
Tool	**Adobe Photoshop**	**Canva**	**Pixlr**
Cost	130 US$	27 US$	60 US$
Training Days	30	10	15
Functionality	85	30	70
Tool (Normalized)	**Adobe Photoshop**	**Canva**	**Pixlr**
Cost	**100.0**	20.8	46.2
Training Days	**100.0**	33.3	50
Functionality	**100.0**	35.3	82
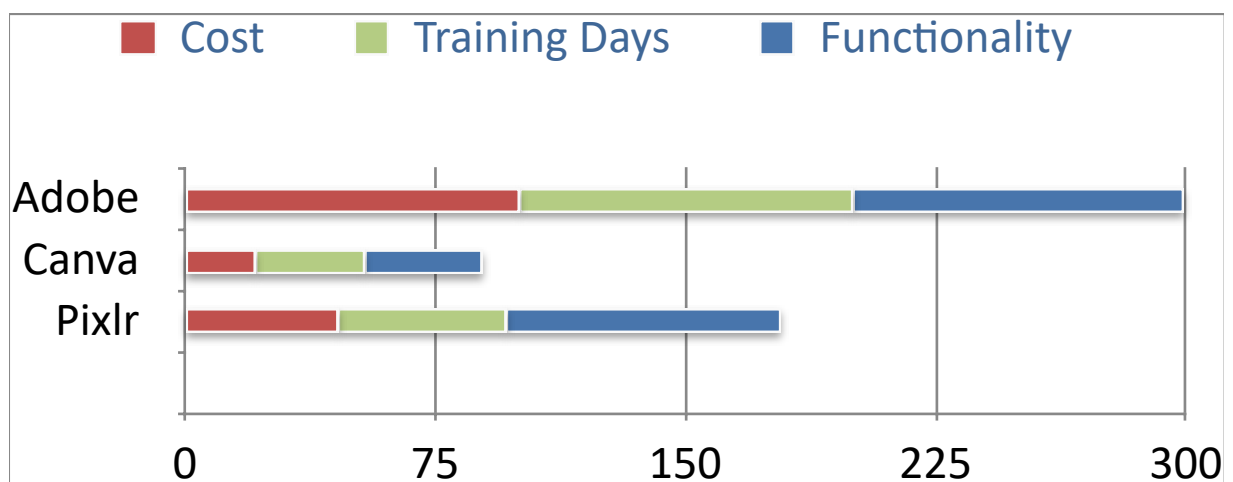
We selected Adobe because it is more versatile than other applications and enables employees to maintain a higher level of professionalism. There is a wide range of extensions available for Photoshop. These extensions allow you to extend the program's functionality and customize it to your specific needs. Photoshop has a large user community. This makes it easy to get help if you have questions or problems with the program. We selected this application because it can be used to illustrate how to medicines are used and user interfaces.

SOFTWARE TOOLS FOR TASK 2: Database Management			
Tool	**PostgreSQL**	**MySQL**	**MongoDB**
Cost	0 US$	$0.24	57 US$
Training Days	30	30	60
Functionality	65	45	70
Tool (Normalized)	**PostgreSQL**	**MySQL**	**MongoDB**
Cost	0	0.42	**100.0**
Training Days	50	50	**100.0**
Functionality	92	64	**100.0**
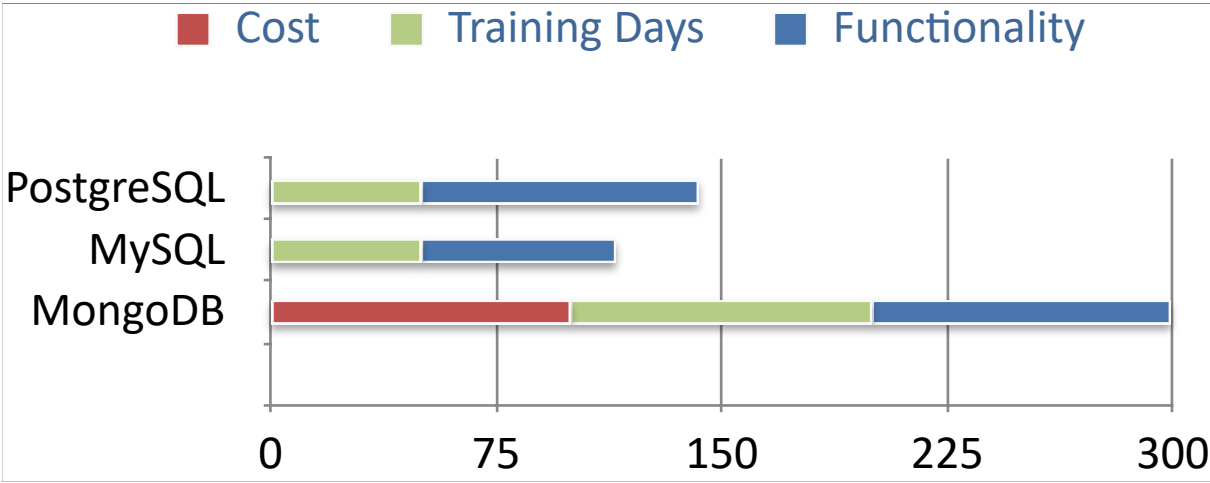
We selected PostgreSQL because it is more reliable, more convenient and easier to work with than others. We eliminate MongoDB because we are more familiar with SQL languages. PostgreSQL's robust data integrity features, including constraints, foreign key relationships, and transactions, ensure the accuracy and consistency of stored data, crucial for maintaining medication records and patient health information. PostgreSQL is a robust, scalable database that can handle large data volumes (32 TB) and concurrent user access without compromising performance as your application grows. PostgreSQL provides a variety of extensions and customizations, enabling users to customize their databases for specific needs, including full-text search, geospatial data processing. PostgreSQL's active community offers extensive documentation, tutorials, and forums for troubleshooting issues and optimizing database performance, fostering a vibrant and active community for ongoing development and support. The active community of PostgreSQL offers support in various areas, This includes tools such as pgModeler and tutorials about them that can simplify the design process.

SOFTWARE TOOLS FOR TASK 3: Analytics and Reporting

| Tool	Excel	SAS	Tableau
Cost	0 US$	10000 US$	900 US$
Training Days	5	30	15
Functionality	60	80	70
Tool (Normalized)	Excel	SAS	Tableau
Cost	0	**100.0**	0.09
Training Days	16.7	**100.0**	50
Functionality	75	**100.0**	87.5
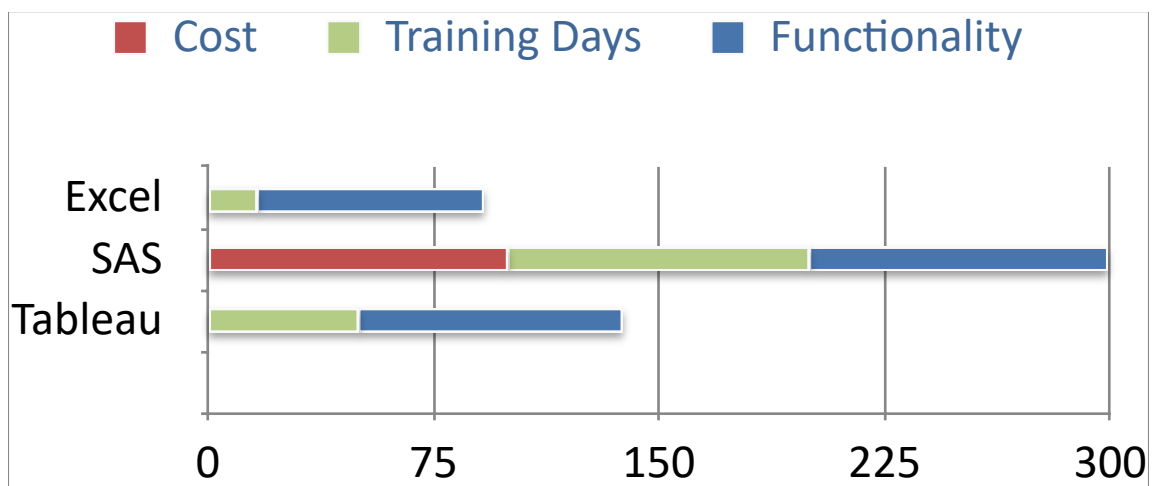
We selected Tableau. It offers a user-friendly interface for creating interactive dashboards and visualizations, benefiting healthcare professionals and administrators without extensive technical expertise in data analysis. Tableau provides a diverse range of charts and maps that simplify the comprehension of complex data. Tableau integrates with various data sources, consolidating healthcare data into a single analytics platform, offering a comprehensive view of medication usage, patient outcomes, and trends. Tableau is scalable and can handle large amounts of data and concurrent users, making it suitable for healthcare organizations of all sizes, from small clinics to large hospitals. Tableau offers a active user community, comprehensive training resources, and documentation to help users maximize the platform's capabilities for healthcare analytics, regardless of experience level. Thanks to this, even those with our level of experience can create eye-catching and descriptive data visualisations.

SOFTWARE TOOLS FOR TASK 4: Live Support			
Tool	**IMB Watson Assistant**	**Microsoft Bot Framework**	**Dialogflow**
Cost	1680 US$	1188 US$	10000 US$
Training Days	20	20	20
Functionality	70	60	80
Tool (Normalized)	**IMB Watson Assistant**	**Microsoft Bot Framework**	**Dialogflow**
Cost	16,80	11,88	**100.0**
Training Days	**100.0**	**100.0**	**100.0**
Functionality	87.5	75	**100.0**
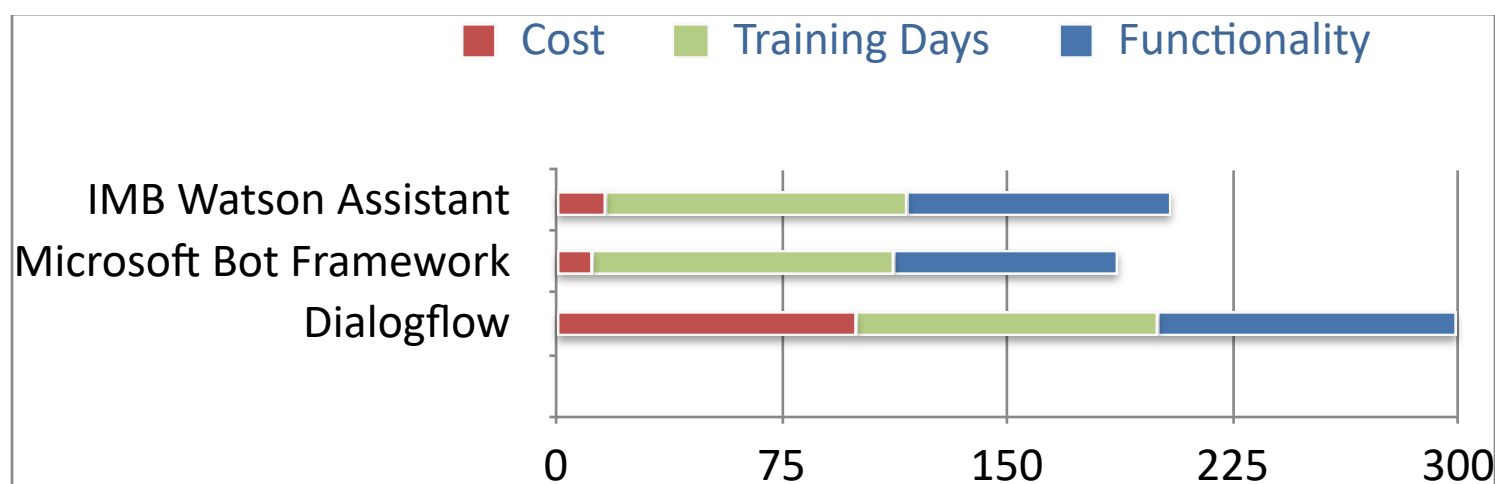
Dialogflow, a live support system, is built on Google Cloud Platform, ensuring high scalability and reliability for handling large user requests and concurrent interactions. We selected Dialogflow because it has a user-friendly interface, seamless web integration with Google's other products and as the health sector is critical, it offers the best response to the user. Due to its simple design and abundance of resources, Dialogflow is an ideal platform for beginners to quickly and easily make progress. Dialogflow employs advanced NLP technologies to interpret user inputs, enabling live support systems to effectively process and respond to queries, even in colloquial or grammatical errors with using Recurrent Neural Networks (RNN) Algorithm. Additionally Dialogflow uses Matching algorithms such as Rule-based grammar matching and ML matching. Dialogflow has supports on different platforms. Dialogflow has integration with third-party systems, allowing for the extension of live support system functionality and access to relevant healthcare applications, databases, and services.