PROJECT NAME: MediShare

GROUP NUMBER and MEMBERS: Bartu ERDEM, Batuhan CAN, Emin Buğra AKSOY, Erkan Efe YEŞİLÇİMEN, Hüseyin Atacan AKGÜN, Samet Tolga ESEN
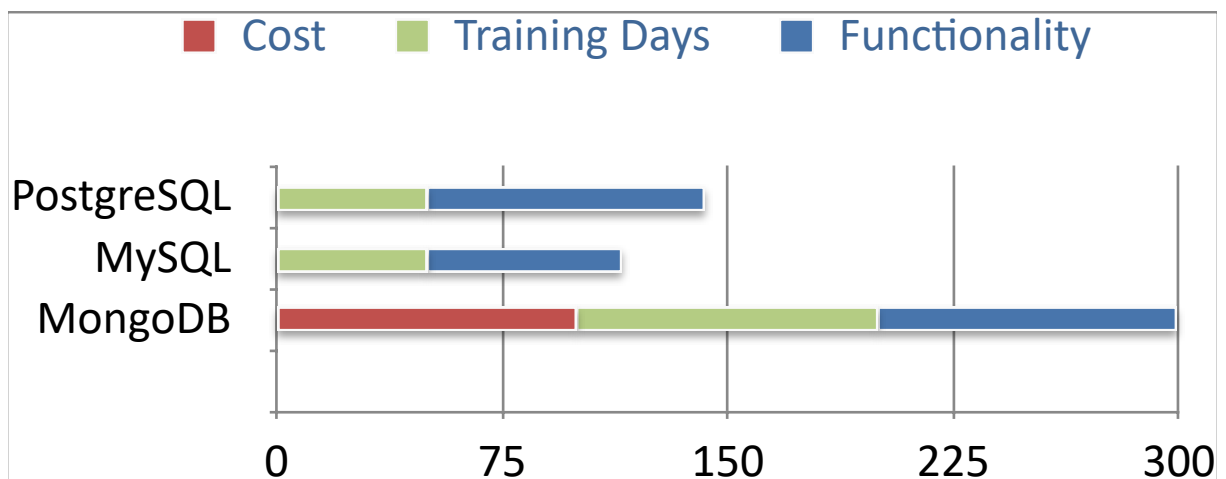
TASK #	PROJECT TASKS WHICH REQUIRE SOFTWARE TOOL SUPPORT
1	Database Management
2	Analytics and Reporting
3	Live Support

We selected our tools based on their compatibility with Flutter. We chose Flutter because it is versatile across multiple platforms and have active communities.
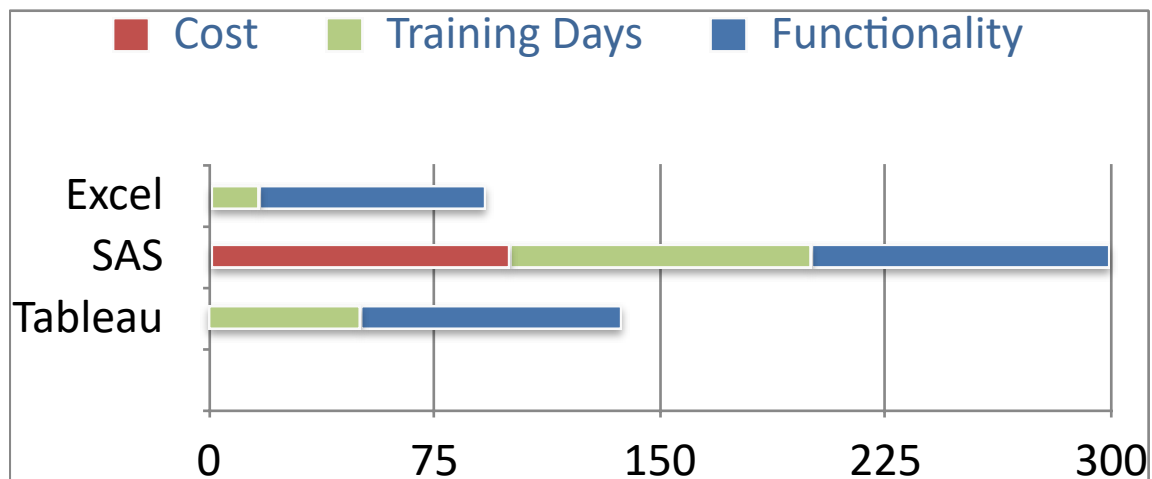
SOFTWARE TOOLS FOR TASK 1: Database Management			
Tool	**PostgreSQL**	**MySQL**	**MongoDB**
Cost	0 US$	$0.24	57 US$
Training Days	30	30	60
Functionality	65	45	70
Tool (Normalized)	**PostgreSQL**	**MySQL**	**MongoDB**
Cost	0	0.42	**100.0**
Training Days	50	50	**100.0**
Functionality	92	64	**100.0**

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.

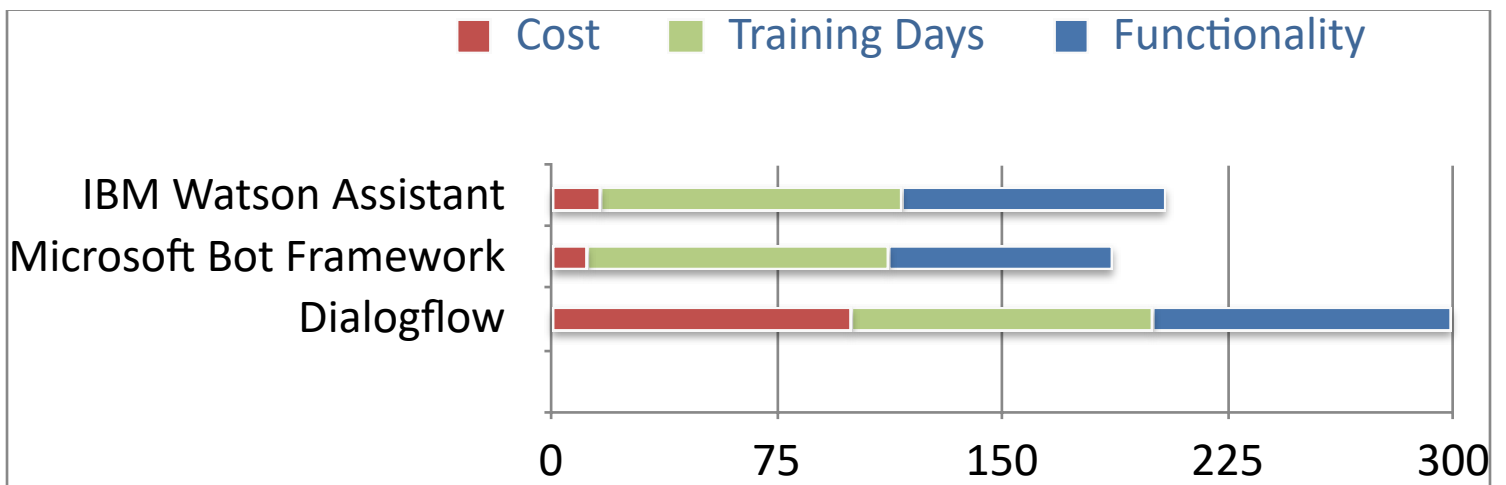| SOFTWARE TOOLS FOR TASK 2: Analytics and Reporting			
Tool	**Excel**	**SAS**	**Tableau**
Cost	0 US$	10000 US$	900 US$
Training Days	5	30	15
Functionality	60	80	70
Tool (Normalized)	**Excel**	**SAS**	**Tableau**
Cost	0	**100.0**	0.09
Training Days	16.7	**100.0**	50
Functionality	75	**100.0**	87.5

We have selected Excel as our preferred software. The decision to use Excel was made for several reasons. Firstly, it is a cost-effective solution. Secondly, there is a wealth of learning resources available. Thirdly, we believe it will be more useful to the developer team in the long term. Finally, it allows us to write the necessary functions in the program if necessary.

SOFTWARE TOOLS FOR TASK 3: Live Support			
Tool	**IBM Watson Assistant**	**Microsoft Bot Framework**	**Dialogflow**
Cost	1680 US$	1188 US$	10000 US$
Training Days	20	20	20
Functionality	70	60	80

Tool (Normalized)	**IBM 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.