

SE 216 – SOFTWARE PROJECT MANAGEMENT
SOFTWARE TOOLS DOCUMENT

PROJECT NAME: TRUE POSTURE

GROUP NUMBER and MEMBERS: Section 2 Group 8

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Project GitHub Account



<https://github.com/SE216-8/TruePosture>

TASK #	PROJECT TASKS THAT REQUIRE SOFTWARE TOOL SUPPORT
1	Cloud-Based
2	Image Processing
3	Progress Tracking
4	Usability(Virtual Design)
5	User Membership System(Database System)

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SOFTWARE TOOLS FOR TASK 1

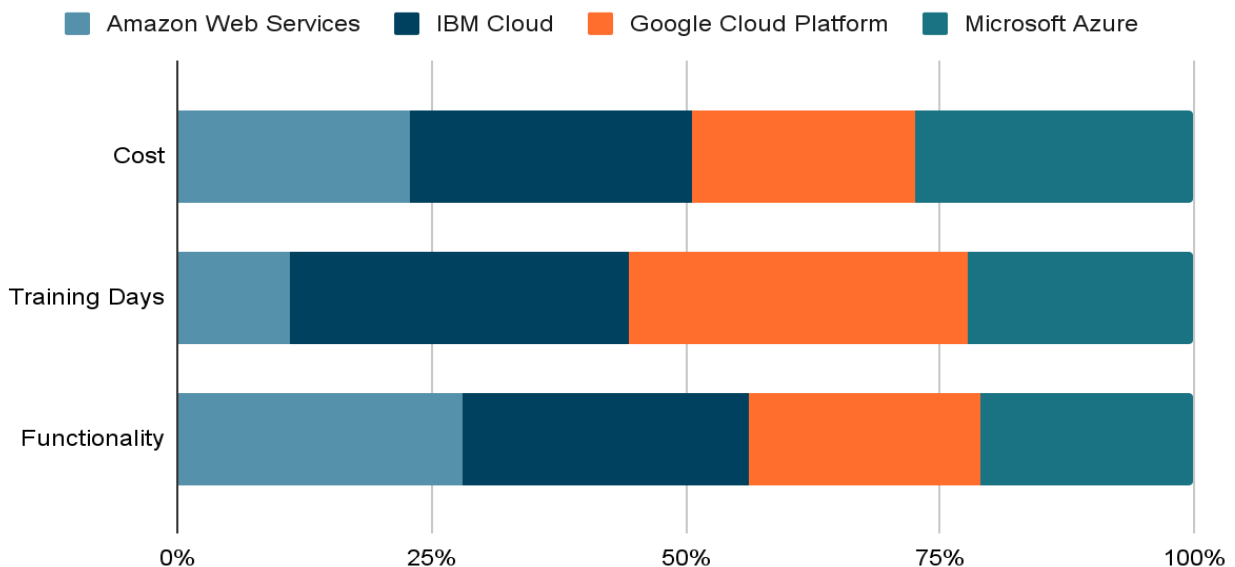
Tool Cost/Training/Functionality Data

Tool	Amazon Web Services	IBM Cloud	Google Cloud Platform	Microsoft Azure
Cost	14.200\$	17.250\$	13.650\$	17.000\$
Training Days	1	3	3	2
Functionality	80	80	65	60

Normalized Cost/Training/Functionality Data

Tool	Amazon Web Services	IBM Cloud	Google Cloud Platform	Microsoft Azure
Cost	82.3	100	79.1	98.5
Training Days	33.3	100	66.6	66.6
Functionality	100	100	81.25	75

Normalized Tool Graph



Which tool has been selected? Why?

The chosen tool is Amazon Web Services (AWS). This option's well-balanced offering of high functionality (tied for highest), comparatively low cost (second lowest), and the least amount of training time needed is probably why people chose it. Because of these factors combined, AWS is a very attractive choice for businesses seeking a feature-rich cloud solution that is comparatively simpler and faster to implement. Lastly, there are numerous sources because AWS has the largest market share of usage. Being more secure in terms of security is also a crucial consideration while selecting it.

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SOFTWARE TOOLS FOR TASK 2

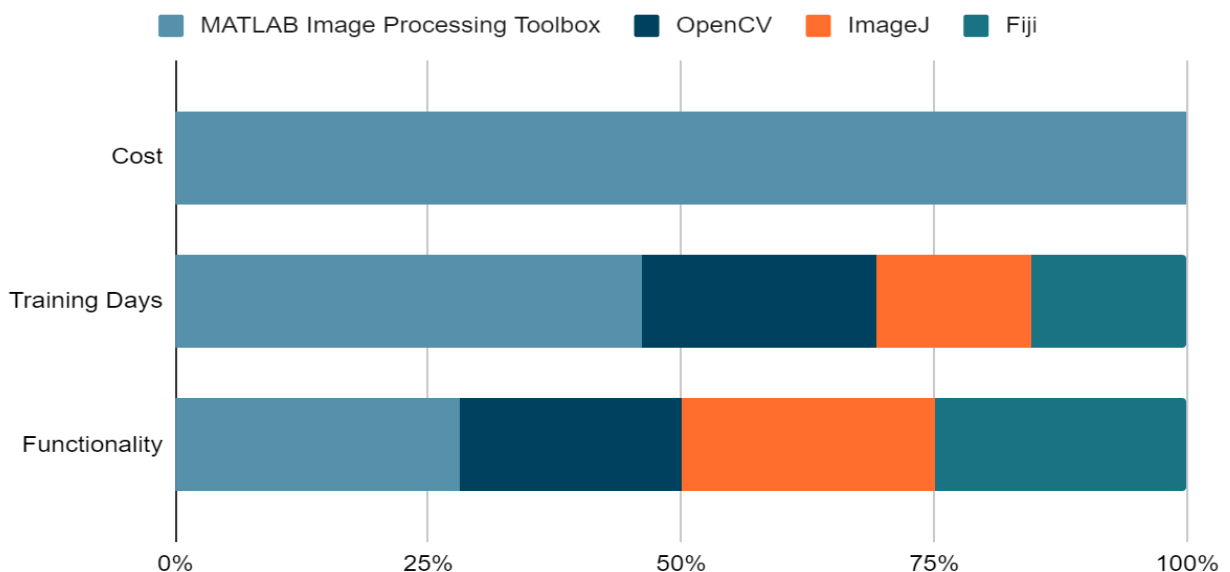
Tool Cost/Training/Functionality Data

Tool	MATLAB Image Processing Toolbox	OpenCV	ImageJ	Fiji
Cost	490\$	0\$	0\$	0\$
Training Days	12	6	4	4
Functionality	90	70	80	80

Normalized Cost/Training/Functionality Data

Tool	MATLAB Image Processing Toolbox	OpenCV	ImageJ	Fiji
Cost	100	0	0	0
Training Days	100	50	33.3	33.3
Functionality	100	77.7	88.8	88.8

Normalized Tool Graph



Which tool has been selected? Why?

The chosen tool is ImageJ. Their unrivaled blend of high functionality, low training requirements, and zero cost is what makes them the ideal choice for projects or organizations looking for efficient image processing solutions that don't break the bank or have a steep learning curve.

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SOFTWARE TOOLS FOR TASK 3

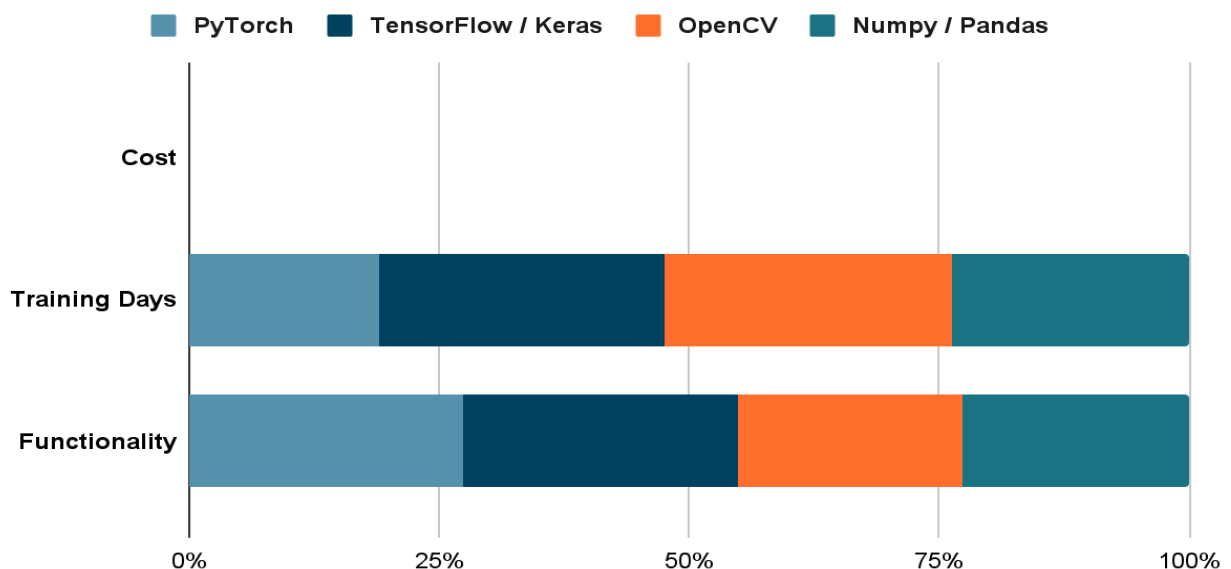
Tool Cost/Training/Functionality Data

Tool	PyTorch	TensorFlow / Keras	OpenCV	Numpy / Pandas
Cost	0\$	0\$	0\$	0\$
Training Days	4	6	6	5
Functionality	85	85	70	70

Normalized Cost/Training/Functionality Data

Tool	PyTorch	TensorFlow / Keras	OpenCV	Numpy / Pandas
Cost	100	100	100	100
Training Days	66.6	100	100	83.3
Functionality	100	100	82.3	82.3

Normalized Tool Graph



Which tool has been selected? Why?

The chosen tool is PyTorch. This decision was made due to its superior trade-off between high functionality and comparatively shorter training times when compared to OpenCV and TensorFlow/Keras. While being a little bit simpler and quicker for beginners to learn, PyTorch offers an extensive feature set that satisfies a variety of machine learning and deep learning demands.

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SOFTWARE TOOLS FOR TASK 4

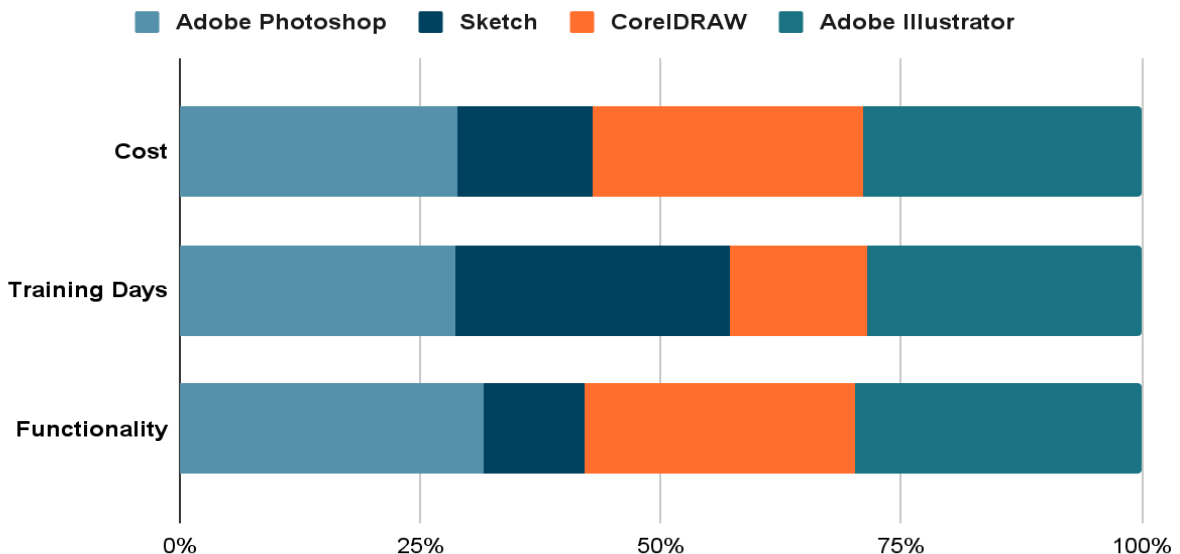
Tool Cost/Training/Functionality Data

Tool	Adobe Photoshop	Sketch	CorelDRAW	Adobe Illustrator
Cost	250\$	120\$	243\$	250\$
Training Days	2	2	1	2
Functionality	90	30	80	85

Normalized Cost/Training/Functionality Data

Tool	Adobe Photoshop	Sketch	CorelDRAW	Adobe Illustrator
Cost	100	48	97.2	100
Training Days	100	100	50	100
Functionality	100	33.3	88.8	94.4

Normalized Tool Graph



Which tool has been selected? Why?

The chosen tool is Adobe Photoshop. Despite its higher cost and longer learning curve, Adobe Photoshop is the recommended option for jobs requiring extensive graphic design capabilities. For individuals who want a strong combination of vector graphics features at a somewhat lower cost and a shorter learning curve, CorelDRAW stands out as a balanced solution. Our MacOS-friendly project is not compatible with Sketch.

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SOFTWARE TOOLS FOR TASK 5

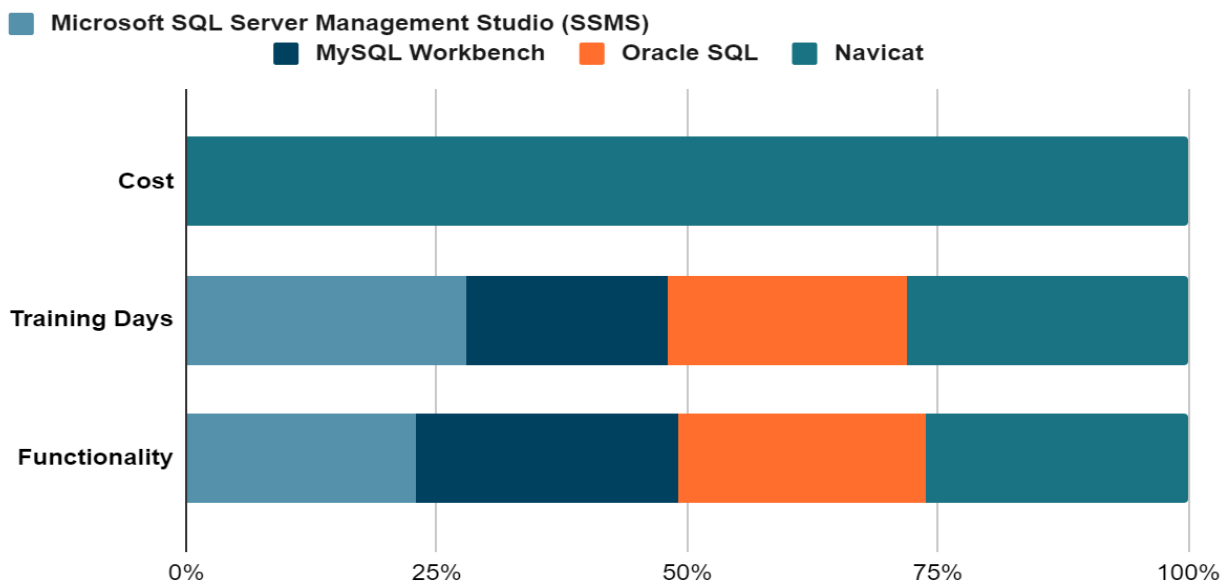
Tool Cost/Training/Functionality Data

Tool	Microsoft SQL Server Management Studio (SSMS)	MySQL Workbench	Oracle SQL	Navicat
Cost	0\$	0\$	0\$	1400\$
Training Days	7	5	6	7
Functionality	70	80	75	80

Normalized Cost/Training/Functionality Data

Tool	Microsoft SQL Server Management Studio (SSMS)	MySQL Workbench	Oracle SQL	Navicat
Cost	0	0	0	100
Training Days	100	71.4	85.7	100
Functionality	87.5	100	93.75	100

Normalized Tool Graph



Which tool has been selected? Why?

The most suitable tool is Microsoft SQL Server. Although MySQL has a lower training time, it is less functional and more difficult to use. Oracle SQL, on the other hand, has higher functionality, is more expensive, and is more difficult to use. Navicat is also a more expensive and less functional tool compared to Microsoft SQL Server. In conclusion, Microsoft SQL Server is the ideal choice for those looking for a tool that is low-cost, easy to use, and has high functionality.