Stack Overflow Usage Survey

Analysis of Developer Preferences and Usage Patterns

Executive Summary

The Stack Overflow survey provides a comprehensive view of the current trends and preferences among developers. The survey reveals the the diversity in tool and technology usage across different operating systems.

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Methodology

The analysis and visualizations in this presentation were created using IBM Cognos Analytics. Data was sourced from the Stack Overflow Developer Survey and processed to extract key insights into developer preferences and usage patterns.
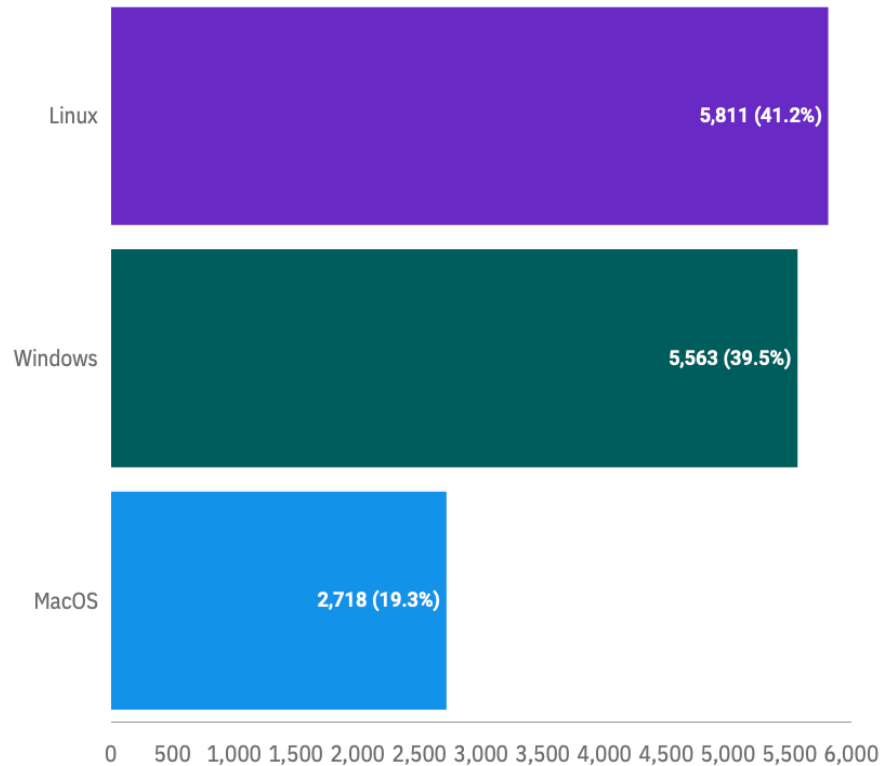
Operating system usage

Linux is the most used operating system (41%)

Followed closely by Windows (40%) and MacOS (19%)

Major Operating systems
■ Linux   ■ MacOS   ■ Windows

Linux — 5,811 (41.2%)

Windows — 5,563 (39.5%)

MacOS — 2,718 (19.3%)

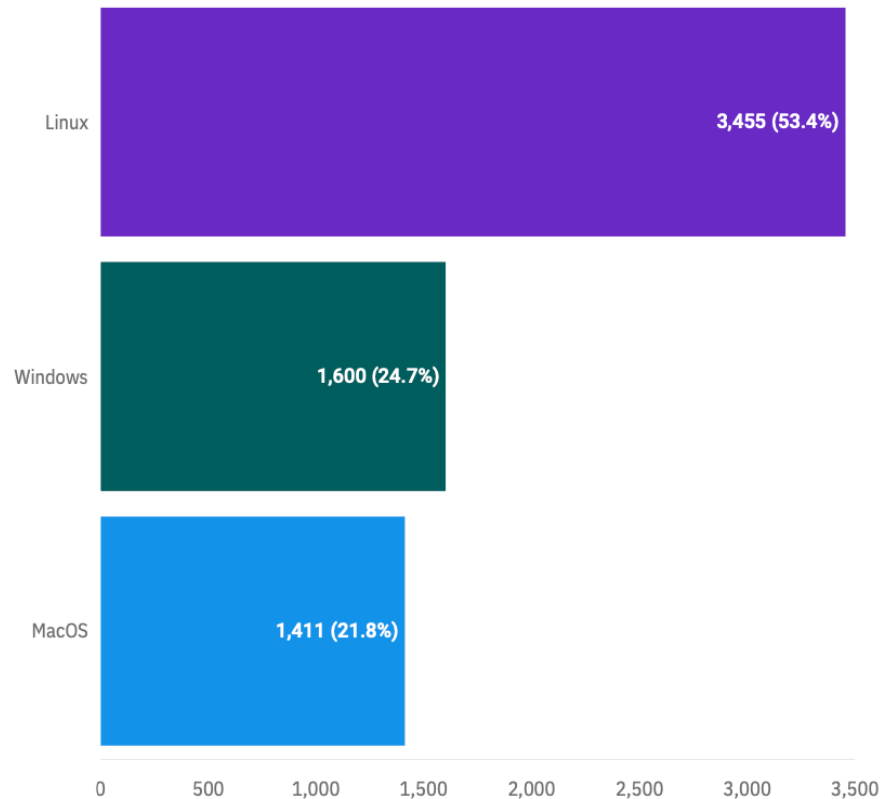0   500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,000 5,500 6,000

More than 50% of respondents desire to switch to Linux OS

Windows and MacOS operating systems have fewer people wishing to switch over.
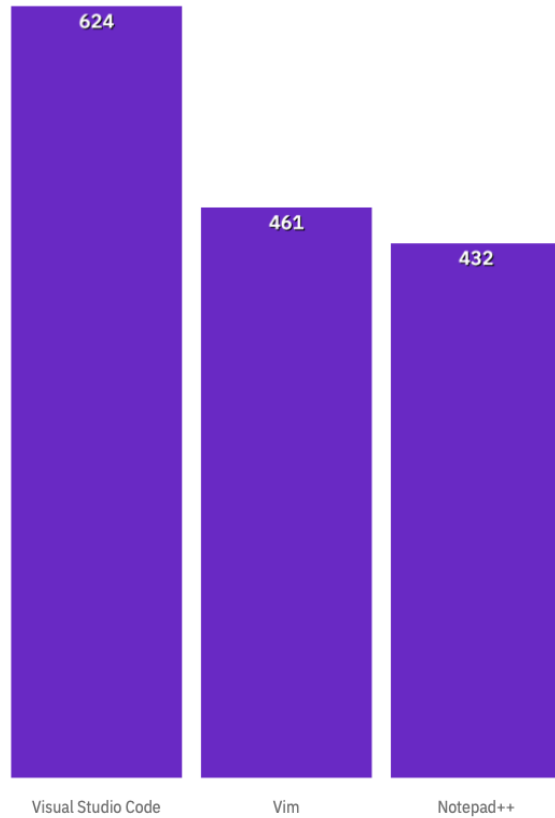
Major Operating systems
■ Linux   ■ MacOS   ■ Windows

Linux — 3,455 (53.4%)

Windows — 1,600 (24.7%)

MacOS — 1,411 (21.8%)

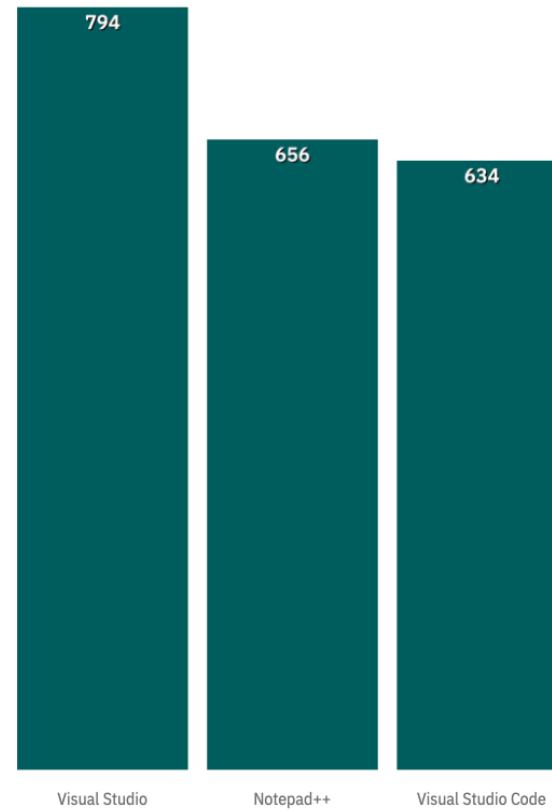0   500 1,000 1,500 2,000 2,500 3,000 3,500

IDE preference

Visual Studio Code is the most used IDE amongst Linux users.

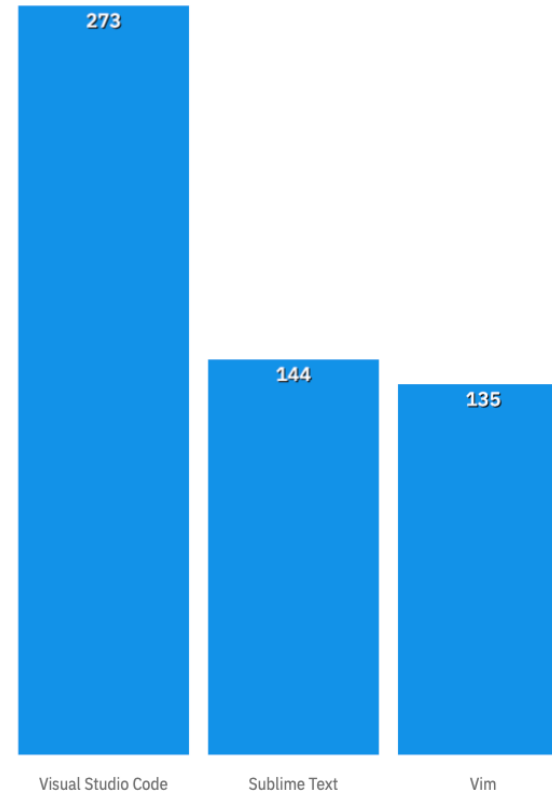Linux users use Vim and Notepad++ code editors too.

Visual Studio is the most used IDE amongst Windows users.

Notepad++ and Visual Studio Code are popular with windows users.

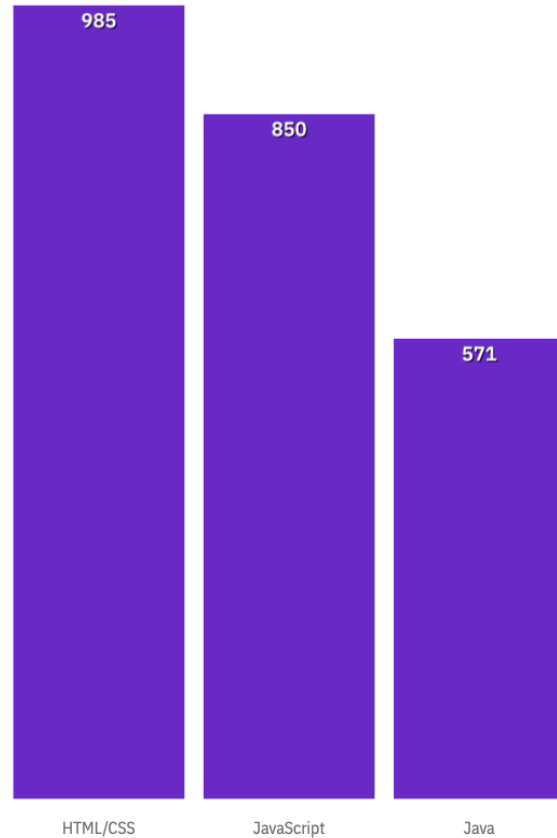**Visual Studio Code is the most used IDE amongst MacOS users.**

After Visual Studio Code, Sublime Text and Vim are popular IDEs.
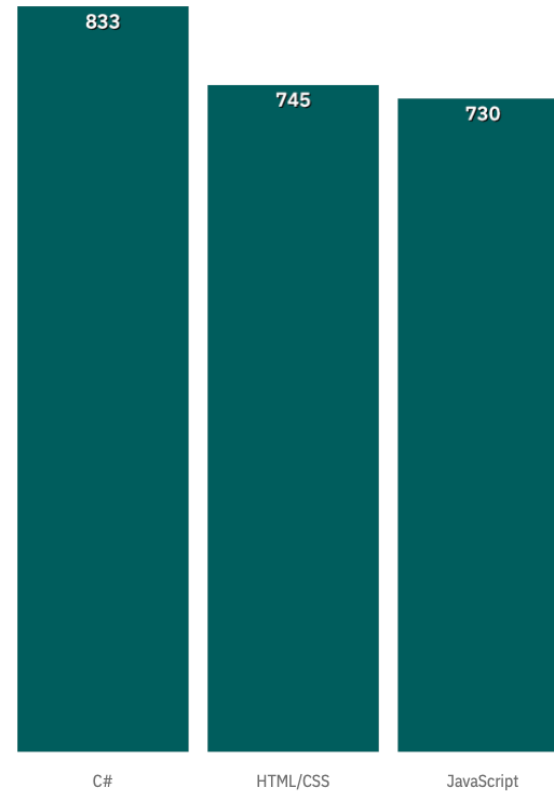
Programming language used

HTML/CSS is the most popular language amongst Linux users.
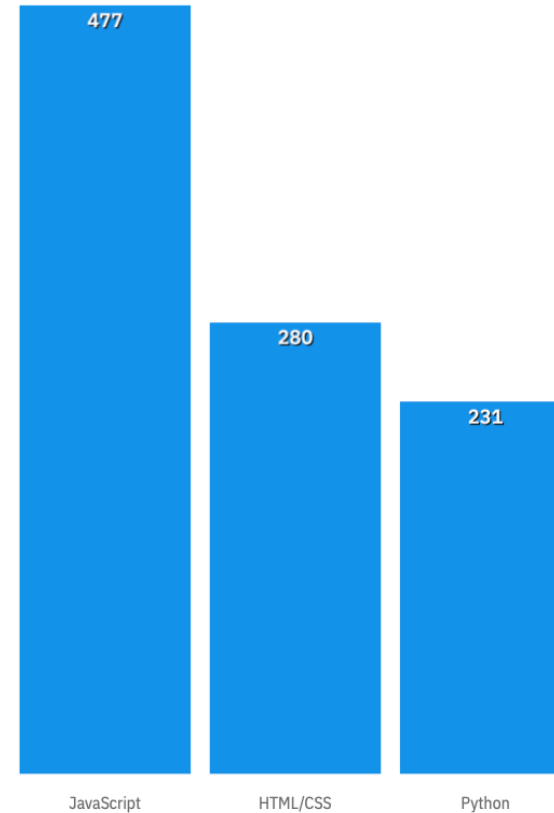
JavaScript and Java are popular with Linux users too.

985		
	850	
		571
HTML/CSS	JavaScript	Java

C# is the most popular language amongst Windows users.

Windows users also write HTML/CSS and JavaScript code.

833		
	745	730
C#	HTML/CSS	JavaScript

JavaScript is the most popular language amongst MacOS users.

Followed by HTML/CSS and Python.

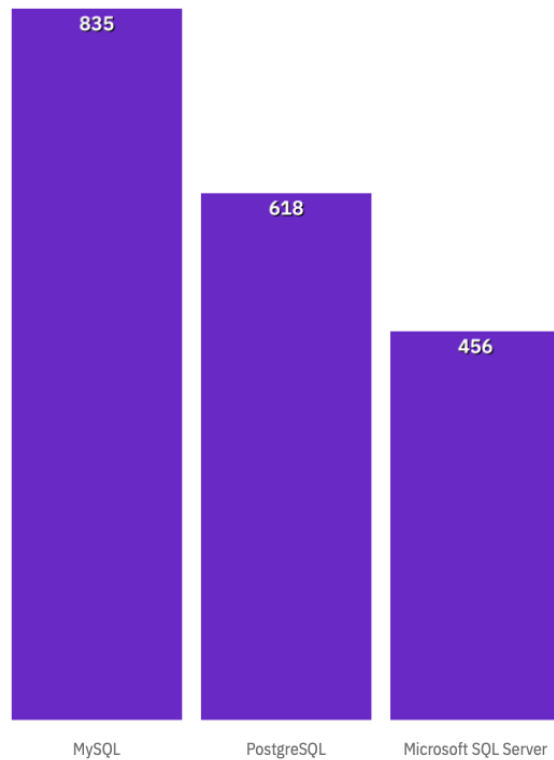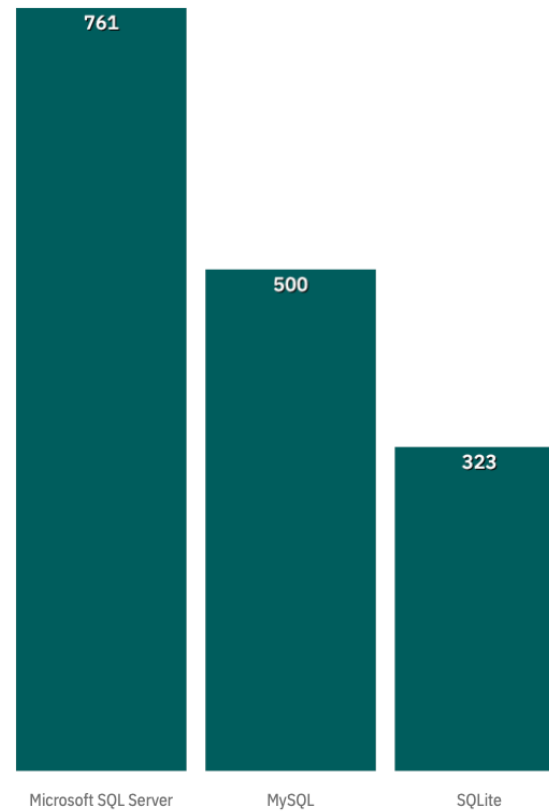|		
477		
	280	231
JavaScript	HTML/CSS	Python

Database popularity

MySQL is the most popular database amongst Linux users.

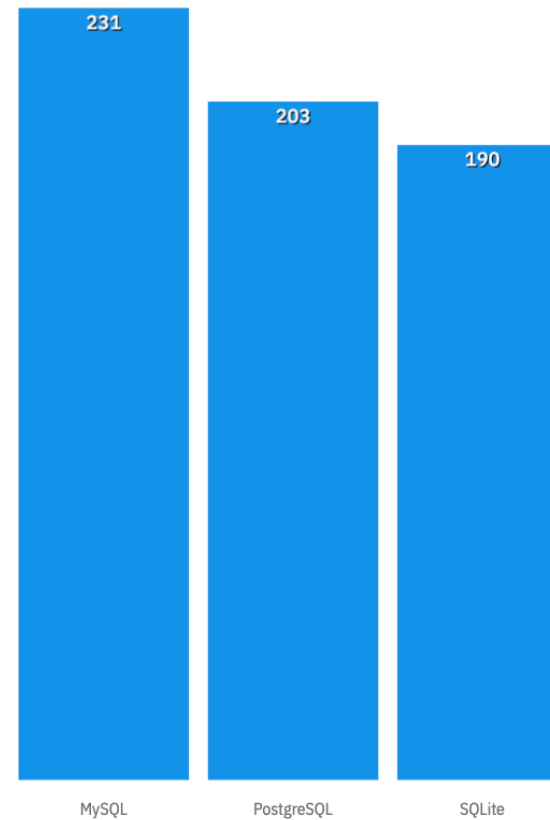PostgreSQL and Microsoft SQL Server came in 2nd and 3rd respectively.

Microsoft SQL Server is the most popular database amongst Windows users.

Windows users also prefer MySQL and SQLite.

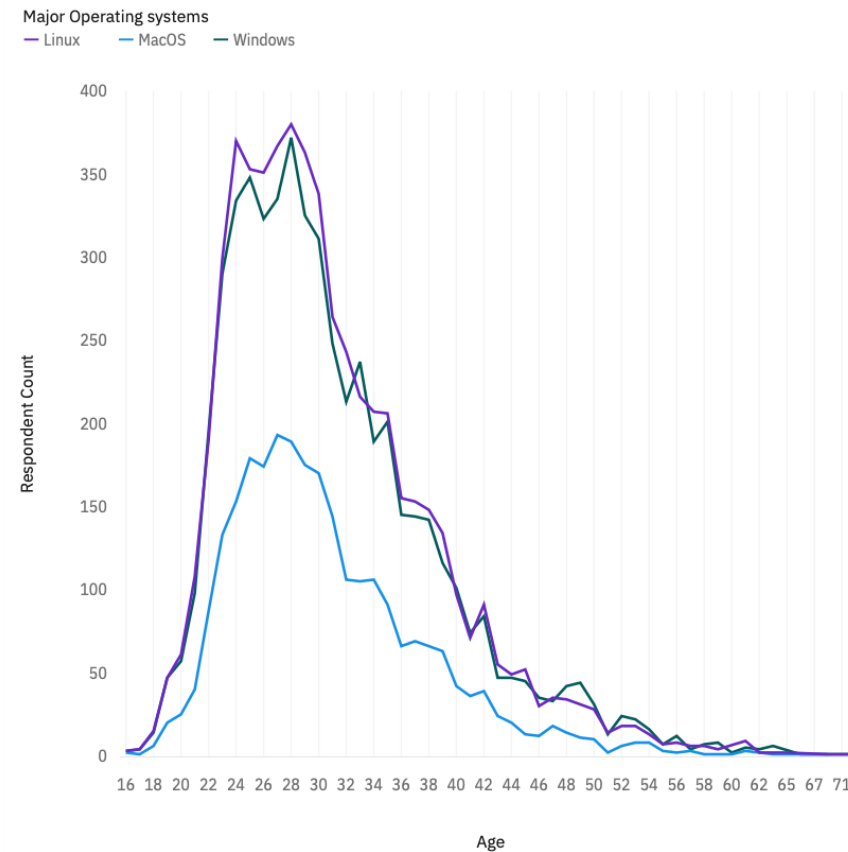**MySQL is the most popular database amongst MacOS users.**

After MySQL, MacOS users PostgreSQL and SQLite databases.
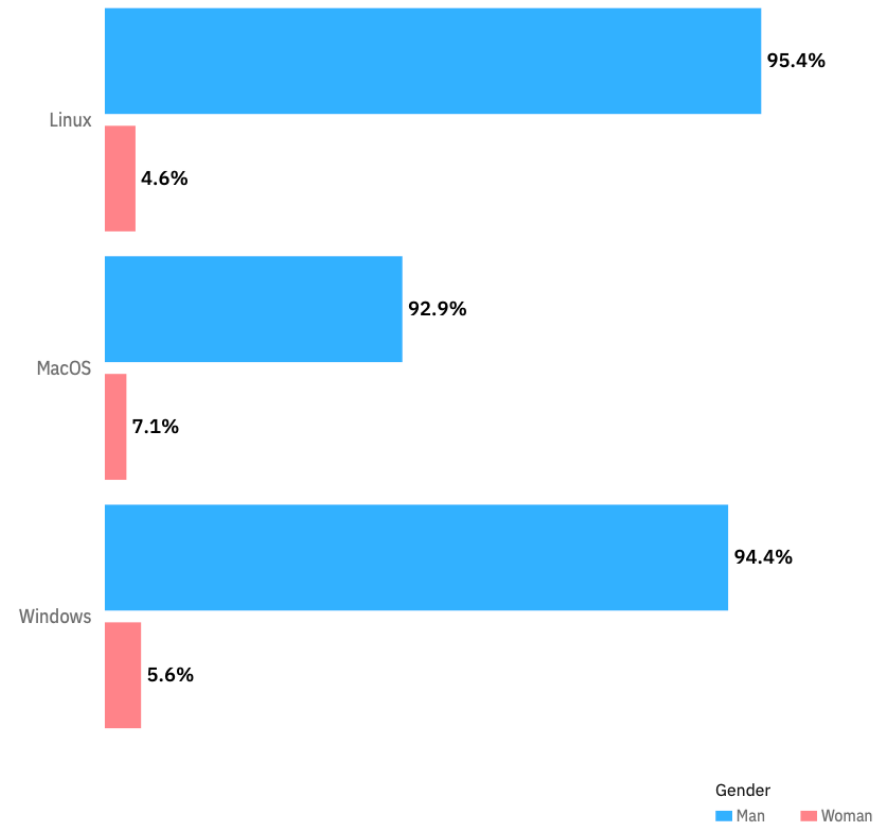
Respondent demographics – Age & Sex

Most respondents were between 24 to 30 years of age, across operating systems

The youngest respondent was 16 years old and the oldest was 99 years old.

The gender distribution across operating systems are similar.

Overwhelming majority of the respondents were men. Among women, MacOS users responded more than other OSs.
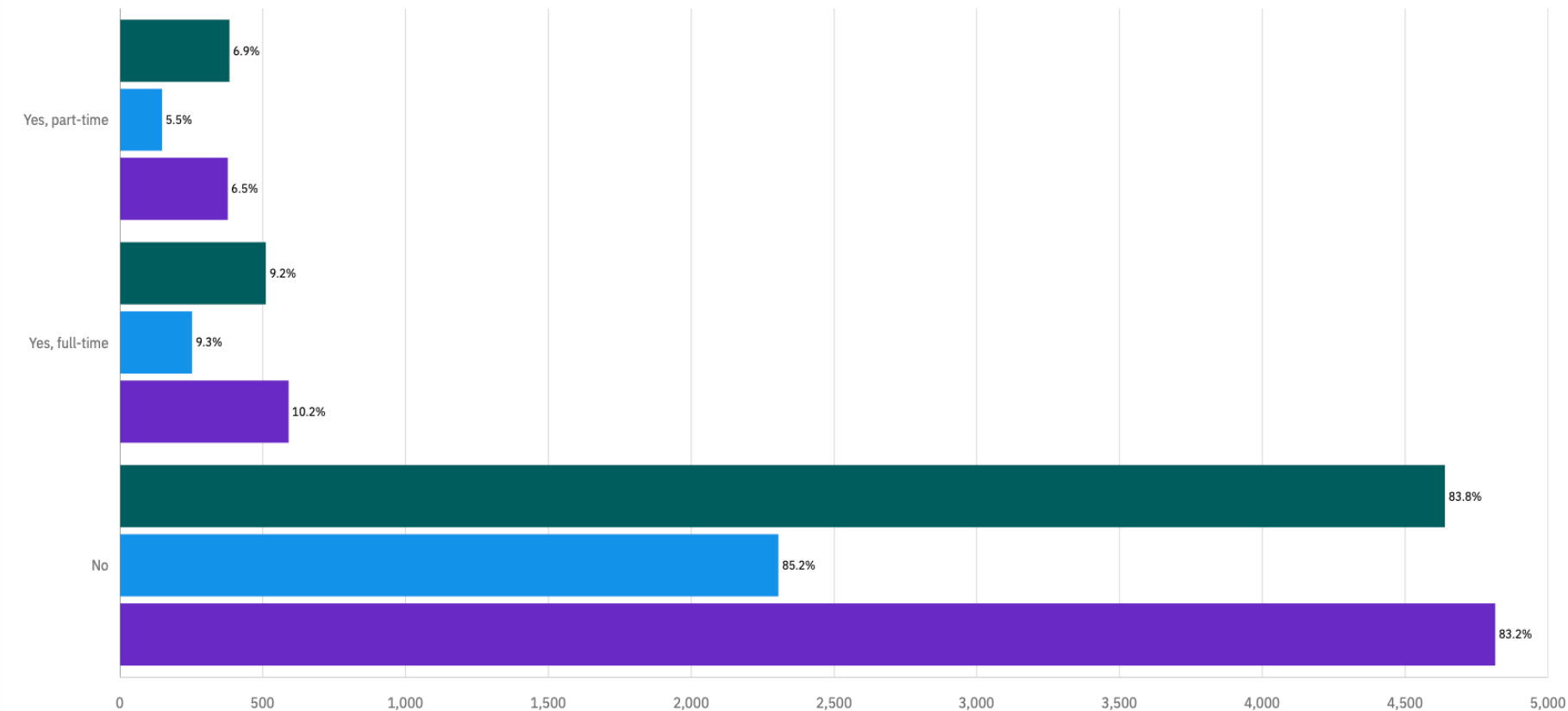
Respondent demographics – Education

Less than 15% of respondents were students, across operating systems.

The majority of respondents were not students.
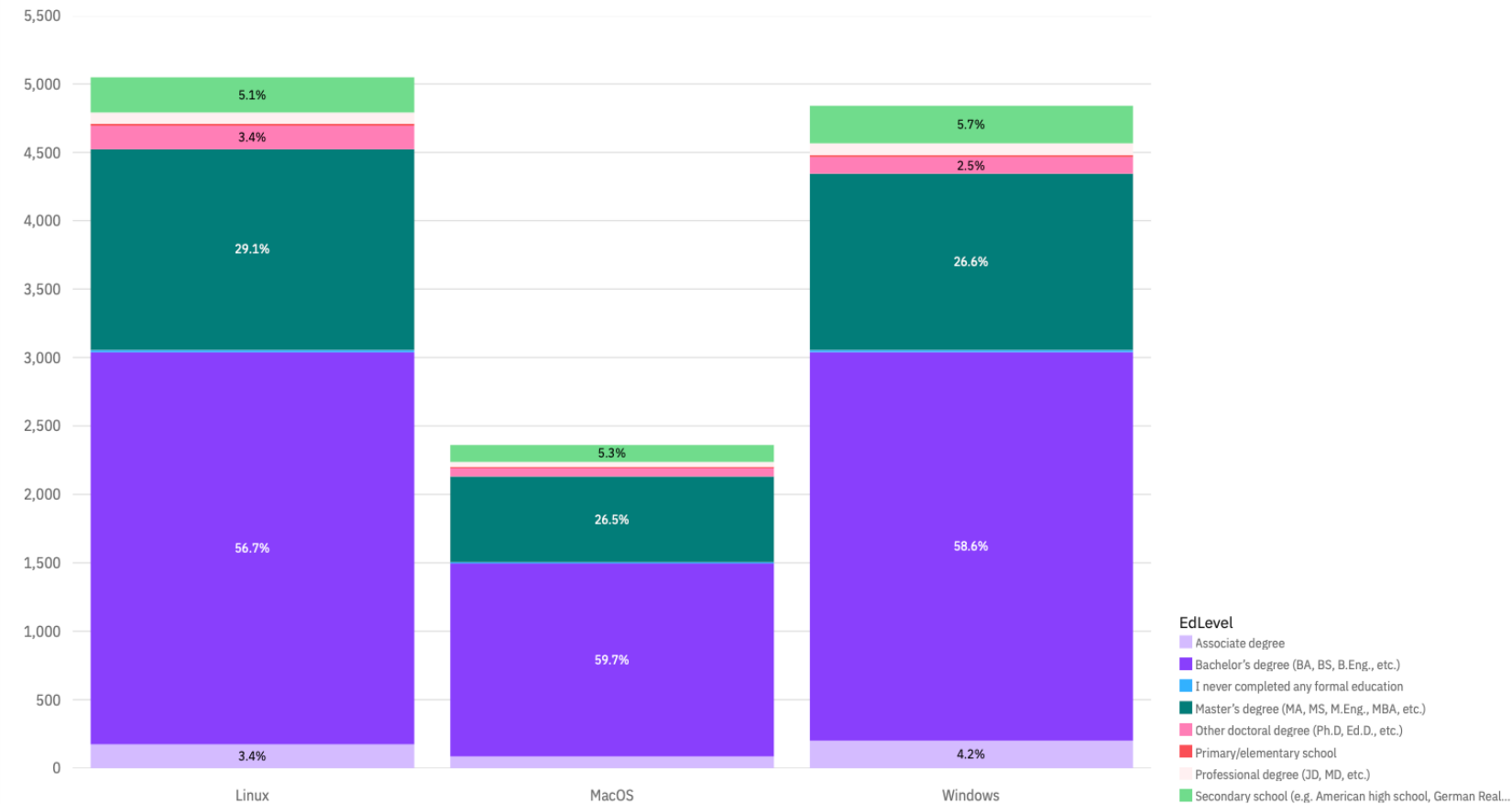
Major Operating systems
■ Windows ■ MacOS ■ Linux

Yes, part-time
- 6.9%
- 5.5%
- 6.5%

Yes, full-time
- 9.2%
- 9.3%
- 10.2%

No
- 83.8%
- 85.2%
- 83.2%

0   500   1,000   1,500   2,000   2,500   3,000   3,500   4,500   5,000

Respondent demographics – Education

About 60% of respondents have a Bachelor's degree, across operating systems.

27% hold a Master's degree and 3% a PhD

Conclusion

The survey reveal that Linux is the most widely used operating system, with a significant interest in switching to it from other OS users. Visual Studio Code emerges as the preferred IDE across all operating systems. HTML/CSS, C#, and JavaScript are the top programming languages among Linux, Windows, and MacOS users, respectively. The data also shows that MySQL and Microsoft SQL Server are the most popular databases among Linux and Windows users. Demographically, most respondents were men between 24 to 30 years, with a high percentage holding a Bachelor's degree.

Appendix

Please find the demographics and survey data along with this presentation.