Lab: About the Dataset

Estimated time: 20 minutes

Learning Objectives

After completing this lab, you will be able to:

- Summarize the key findings and trends from the Stack Overflow Developer Survey dataset.

Introduction

Stack Overflow, the go-to platform for developers, conducted a global survey to capture insights into the developer community. This survey includes various questions related to professional experience, coding activities, tools, technologies, and preferences. The dataset offers important information about the current state of software development worldwide.

In this lab, you will work with a subset of the original dataset to explore, analyze, and visualize various trends. The survey data consists of responses from developers with different professional backgrounds, educational levels and geographic locations.

Dataset Source

The dataset is available as part of the Stack Overflow Developer Survey under an Open Database License (ODbL). You can access the full data set at this link.

Subset Information

For this lab, you will use a subset of the full data set, which contains several thousand responses. Please note that the conclusions drawn from this subset may not fully reflect the global developer community.

Column Description for Survey Data

Column name	Question text
ResponseId	Randomized respondent ID number.
MainBranch	Which of the following options best describes you today?
Age	What is your age?
Employment	What is your current employment status?
RemoteWork	How often do you work remotely?
Check	Check Various verification or check questions related to survey consistency.
CodingActivities	What coding activities do you engage in (hobby, professional, and open-source contributions)?
EdLevel	What is the highest level of formal education you have completed?
LearnCode	How did you learn to code?
LearnCodeOnline	Have you used online resources to learn coding?
TechDoc	How do you use technical documentation?
YearsCode	How many years have you been coding?
YearsCodePro	How many years have you coded professionally?
DevType	What is your role or type of development work you do?
OrgSize	What is the size of the organization you work for?
PurchaseInfluence	How much influence do you have on purchasing technology at your company?
BuyNewTool	How does your company decide whether to buy new tools or technology?
BuildvsBuy	Does your company prefer to build or buy software?
TechEndorse	Do you endorse any specific technologies at your company?
Country	In which country do you reside?
Currency	Which currency do you use day-to-day?
CompTotal	What is your current total compensation (salary, bonuses, and so on)?
LanguageHaveWorkedWith	Which programming languages have you worked with in the past year?
LanguageWantToWorkWith	Which programming languages do you want to work with in the future?
LanguageAdmired	Which programming languages do you admire most?

DatabaseHaveWorkedWith	Which database technologies have you worked with in the past year?
DatabaseWantToWorkWith	Which database technologies do you want to work with in the future?
DatabaseAdmired	Which database technologies do you admire most?
PlatformHaveWorkedWith	Which platforms have you worked with in the past year?
PlatformWantToWorkWith	Which platforms do you want to work with in the future?
PlatformAdmired	Which platforms do you admire most?
WebframeHaveWorkedWith	Which web frameworks have you worked with in the past year?
WebframeWantToWorkWith	Which web frameworks do you want to work with in the future?
WebframeAdmired	Which web frameworks do you admire most?
EmbeddedHaveWorkedWith	Which embedded systems have you worked with in the past year?
EmbeddedWantToWorkWith	Which embedded systems do you want to work with in the future?
EmbeddedAdmired	Which embedded systems do you admire most?
MiscTechHaveWorkedWith	Which miscellaneous technologies have you worked with in the past year?
MiscTechWantToWorkWith	Which miscellaneous technologies do you want to work with in the future?
MiscTechAdmired	Which miscellaneous technologies do you admire most?
OpSysPersonal	What operating systems do you use for personal tasks?
OpSysProfessional	What operating systems do you use for professional tasks?
SOVisitFreq	How frequently do you visit Stack Overflow?
SOAccount	Do you have a Stack Overflow account?
SOPartFreq	How often do you participate in Q&A on Stack Overflow?
AISelect	How do you feel about artificial intelligence tools for development?
AIBen	What benefits have you experienced from using AI tools?
AIChallenges	What challenges have you faced while using AI tools?
JobSat	How satisfied are you with your current job?

Summary

After completing this lab, you will be able to:

- Recognize the dataset is a valuable resource for analyzing trends in software development.

- Gain insights into the most popular programming languages, platforms, and frameworks, as well as the challenges and opportunities facing developers today by exploring the survey data.
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