

# 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   |
|-------------------|---|
| RespondId         | 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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