



2025 DEVELOPER WORKFORCE INSIGHTS

Business/Policy context

Team Members:

Palak(2401020042), Apoorva Choudhary(2401010092),
Mayank(2401010267), Suryansh Singh(2401010467),
Shreya Suman(2401020068), Pampana Sree Adithya (2401010315),
Mohit Singh(2401020098)



● Problem Statement:

To understand what factors most strongly influence developer compensation and job satisfaction in 2025 across countries, industries, and organizational structures.

● Sector Context (Why this matters):

- The tech industry depends heavily on skilled developers
- Companies face high attrition and rising salary costs
- Remote and hybrid work models have changed workforce dynamics
- HR leaders and policymakers need data-driven insights

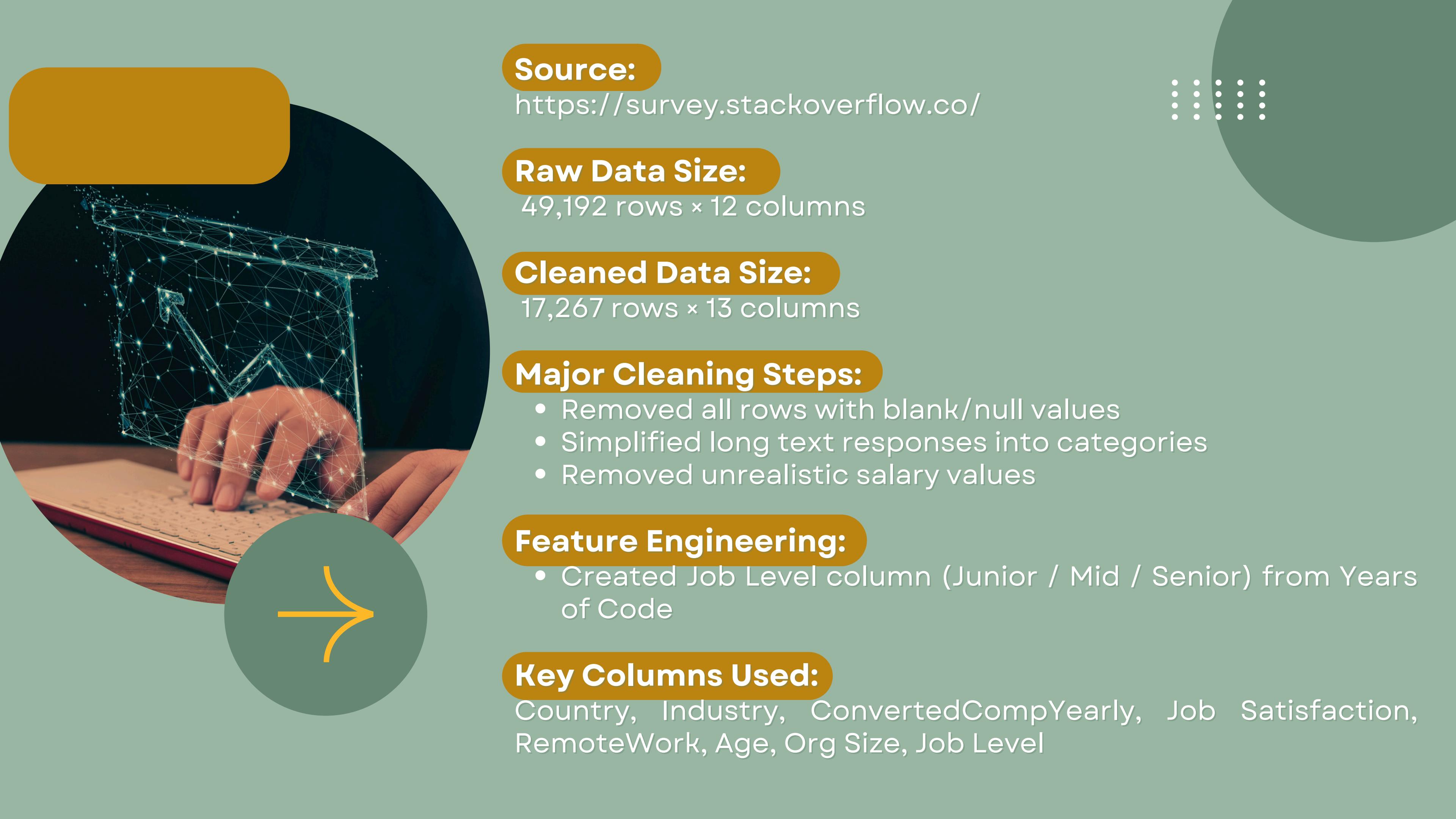
● Decision-Maker:

HR Managers, Workforce Planners, Policy Makers, Tech Leaders

● Objective:

To support strategic workforce planning and compensation decisions using data insights.





Source:

<https://survey.stackoverflow.co/>



Raw Data Size:

49,192 rows × 12 columns

Cleaned Data Size:

17,267 rows × 13 columns

Major Cleaning Steps:

- Removed all rows with blank/null values
- Simplified long text responses into categories
- Removed unrealistic salary values

Feature Engineering:

- Created Job Level column (Junior / Mid / Senior) from Years of Code

Key Columns Used:

Country, Industry, ConvertedCompYearly, Job Satisfaction, RemoteWork, Age, Org Size, Job Level

What are we measuring?

- Average Salary
- Median Salary
- Job Satisfaction Score
- Salary by Experience
- Salary by Industry
- Job Satisfaction by Work Mode

Why these KPIs?

- Salary KPIs → measure economic value
- Satisfaction KPIs → measure workforce well-being
- Segmented KPIs → support HR and policy decisions

Link to Problem:

These KPIs directly explain what drives compensation and satisfaction.





KEY INSIGHTS (EDA)

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1. Salary increases strongly with experience and job level
 2. Senior developers earn much more than junior roles
 3. Large organizations pay higher salaries than small firms
 4. Tech-heavy industries offer higher compensation
 5. Remote and flexible workers show higher job satisfaction
 6. Job satisfaction increases with age and experience
(Business language: shows talent value, retention risk, and workforce structure)

SEGMENTATION ANALYSIS:

- Segmented by job level, industry, org size, and remote work

**NEW UNDERSTANDING PROVIDED:
NOT JUST “WHO EARNS MORE”, BUT WHY THEY EARN MORE AND WHY THEY STAY SATISFIED.**

ROOT CAUSE UNDERSTANDING:

- High salary driven by seniority + large org + tech industry
- High job satisfaction driven by flexibility + experience

OPERATIONAL VIEW:

- Salary by Experience
- Org Size vs Job Level
- Job Satisfaction by Remote Work
- Industry vs Salary

EXECUTIVE VIEW:

- KPIs: Average Salary, Median Salary, Job Satisfaction
- Global overview by country and industry

FILTERS AVAILABLE:
COUNTRY, INDUSTRY, JOB
LEVEL, REMOTE WORK, ORG
SIZE



RECOMMENDATIONS

- Introduce tiered compensation bands by job level
- Promote remote and hybrid work models
- Benchmark salaries by industry, not just role
- Focus retention efforts on mid-level developers
- Use workforce analytics for long-term planning



COST IMPACT:

- Lower attrition → reduced hiring costs

EFFICIENCY IMPACT:

- Better role-salary alignment
- Improved workforce planning

EFFICIENCY IMPACT:

- Higher satisfaction → better productivity

Why approve this project?

It enables data-driven HR and policy decisions instead of intuition-based ones.





LIMITATIONS:

- Survey data may contain bias
- Currency normalization is approximate
- Unequal country sample sizes

NEXT STEPS:

- Add multi-year data for trend analysis
- Include skill-level and performance data
- Apply predictive salary models