**Title:** Web Scraping from Bama.ir Using Selenium and MySQL

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Project Introduction

Project Goal:

Automatically extract new car listings from Bama.ir and store their data in a MySQL database.

Why This Project:

Bama is one of the main platforms for car advertisements , and analyzing its data can be valuable for market decision-making.

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Technologies, Tools & Libraries Used

• Python 3.11

• Selenium (Headless Firefox)

• BeautifulSoup (for HTML parsing)

• MySQL

• WebDriver Manager (automatic GeckoDriver setup)

• Logging (for storing logs)

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Project Workflow

1. Open Bama.ir using Selenium in headless mode

2. Scroll the page to load more listings

3. Find ads published less than 1 hour ago

4. Extract ad links

5. Fetch HTML using requests

6. Parse data with BeautifulSoup

7. Store information in MySQL

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Slide 4: Extracted Information

• Car name

• Mileage

• Price

• Model / Year

• Exterior and Interior color

• Trim

• Fuel type

• Gearbox

• Body condition

• Engine type

• Engine size

• Date

• Fuel consumption

• Acceleration

• Seller description

• Ad link

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Challenges & Solutions

Challenge: Dynamic loading of listings via scroll

Solution: Stepwise scrolling with sleep intervals

Challenge: Interpreting relative ad timestamps

Solution: Convert strings like “5 minutes ago” to datetime objects

Challenge: Headless Selenium configuration

Solution: Use FirefoxOptions and WebDriverManager on Windows

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Final Result

• Stable, bug-free execution on Windows

• Successful data storage in the database

• Solid foundation for future developments (e.g., API, notifications, dashboard)