

Vocational English IV
(Mesleki Yabancı Dil IV)
Week 3

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Engineering Faculty
Computer Engineering

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INTRODUCTION

BeanHub , your smart accounting book

BeanHub is a modern accounting book app based on the most popular open source version control system Git and text-based double entry accounting book software [Beancount](#). With BeanHub, personal finance, budgeting, and business bookkeeping are easier than ever.

Try Out Demo Repo

ARTICLE: THE JOURNEY TO AUTOMATION

- I built **BeanHub** to solve my own accounting problems. After **three years**, my **Beancount books are now 95% automated**. Watching my accounting update itself in an **open format** brings me joy. Even better—others are paying for it!

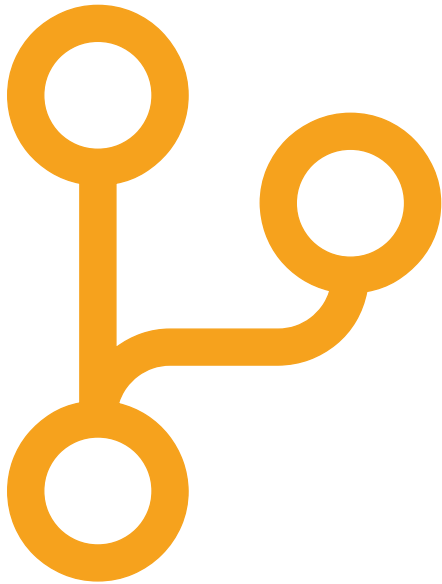
WHY NOT USE EXISTING SOFTWARE?

- Popular options like QuickBooks and Xero exist, but **software isn't forever**. One day, they'll shut down, and users will be stuck with outdated formats or **locked-in data**. That's why I chose **Beancount**, an open-source alternative.



THE “FILE OVER APP” PHILOSOPHY

- Most accounting tools use **databases**. I wanted something different—a **system that operates on files**. This makes development harder but ensures my books stay open, portable, and future-proof.



OPEN SOURCE AS A STRATEGY

- To automate Beancount, I built and open-sourced **15+ tools**—including a parser, formatter, and import engine. Open-source gives back to the community, **attracts users**, and ensures BeanHub remains useful even if my company shuts down.

CHALLENGES OF BUILDING A GIT-BASED SYSTEM

- BeanHub tracks all accounting data in **Git repositories** for **full history & transparency**. But hosting Git at scale isn't easy—it requires tackling **security, durability, forking, and cost**. In the process, I essentially built a **mini GitHub** from scratch.

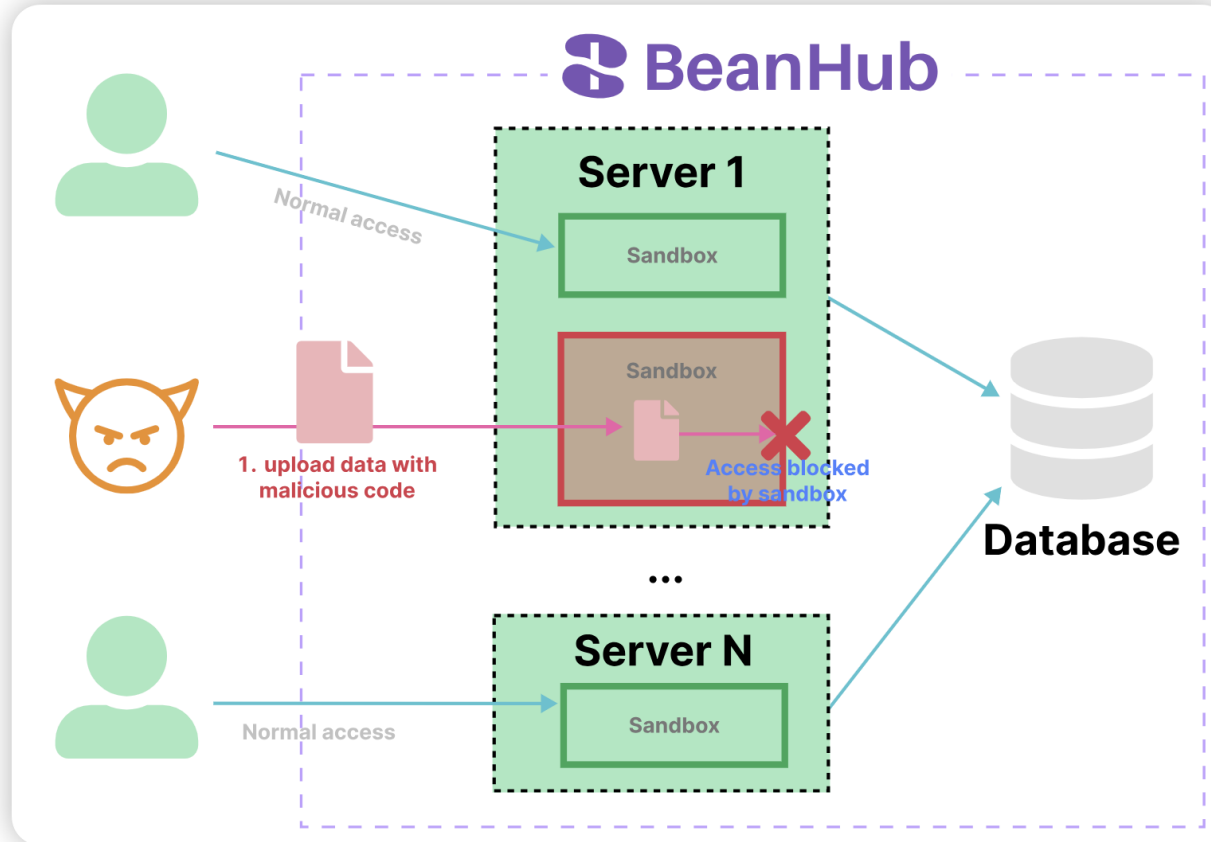
The screenshot displays the BeanHub application interface, which is a mini GitHub-like system. The top menu bar includes 'File', 'View', 'Repository', 'Window', and 'Help'. Below this, there's a toolbar with icons for 'Quick Launch', 'Fetch', 'Pull', 'Push', and 'Stash'. The main window is titled 'Fork - Personal' and shows the 'personal-beanhub' repository on the 'master' branch. The left sidebar contains a 'personal-beanhub' section with 'Local Changes (1)' and 'All Commits'. Below this is a 'Filter' input and a list of 'Branches' (including 'master') and 'Remotes' (including 'origin' and 'master'). The main area shows a list of commits, with the 'master' branch selected. The commit list includes a table with columns for 'Commit', 'Changes', and 'File Tree'. The 'Changes' column shows a diff of the commit, and the 'File Tree' column shows the file structure. The bottom of the window shows a preview of the selected file, 'import-data/connect/Citibank Online/Costco Anywhere Visa® Card by Citi/2024.csv', which contains a CSV file with transaction data.

| Commit | Changes | File Tree |
|-----------|--|-----------|
| 5419 5419 | 2024-12-26 ! "Costco" "Grocery shopping" | |
| 5420 5420 | 2024-12-26 * "Costco" "Grocery shopping" | |
| 5421 5421 | import-id: "jDm6BZl" | |
| 5422 5422 | import-src: "import-data/connect/Citibank Online/Costco Anywhere Visa\u00ae\u00a1" | |
| 5423 5423 | Liabilities:CreditCard:US:CitiCostcoAnywhere | |
| 5424 5424 | Expenses:Grocery | |
| 5425 5425 | | |
| 5426 5426 | 2024-12-26 ! "Costco" "Grocery shopping" | |
| 5427 5427 | 2024-12-26 * "Costco" "Grocery shopping" | |
| 5428 5428 | import-id: "0vP4VL" | |
| 5429 5429 | import-src: "import-data/connect/Citibank Online/Costco Anywhere Visa\u00ae\u00a1" | |
| | Liabilities:CreditCard:US:CitiCostcoAnywhere | |

import-data/connect/Citibank Online/Costco Anywhere Visa® Card by Citi/2024.csv

```
@@ -11,5 +11,5 @@ date,name,amount,pending,website,datetime,logo_url,account_id,categ
11 11 2024-09-22,AUTOPAY : AUTO-PMT, False,,,RvE05pPmAmsa0aMxz
12 12 2024-10-08,Costco, False,costco.com,,https://plaid-merchant-logos.plaid.com/cost
13 13 2024-10-22,AUTOPAY AUTO-PMT, False,,,RvE05pPmAmsa0aMxz
14 2024-12-26,Costco, True,costco.com,,https://plaid-merchant-logos.plaid.com/costcc
15 2024-12-26,Costco, True,costco.com,,https://plaid-merchant-logos.plaid.com/costc
14 2024-12-26,Costco, False,costco.com,,https://plaid-merchant-logos.plaid.com/costc
15 2024-12-26,Costco, False,costco.com,,https://plaid-merchant-logos.plaid.com/cost
```

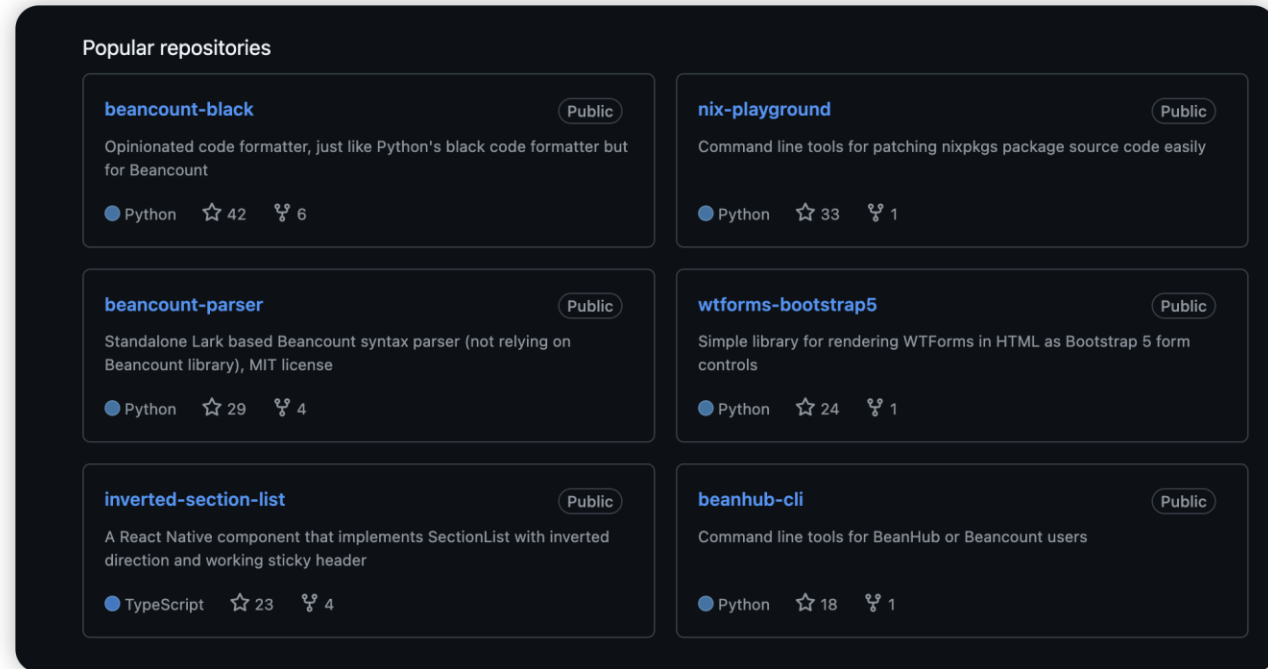
SECURITY MATTERS



- Processing user-uploaded files is risky—**malicious Beancount files** can execute code. To prevent security breaches, I implemented **container-based sandboxing**, protecting both BeanHub and its users from potential exploits.

THE STRUGGLES OF SELLING A PRODUCT

- Building is one thing, **selling is another**. I often feel my product isn't "good enough" to market aggressively. But the reality is—if it's good enough for me, it's **good enough for others**. Growing a user base requires **education & community-building**.



<https://github.com/LaunchPlatform>

WHAT'S NEXT?

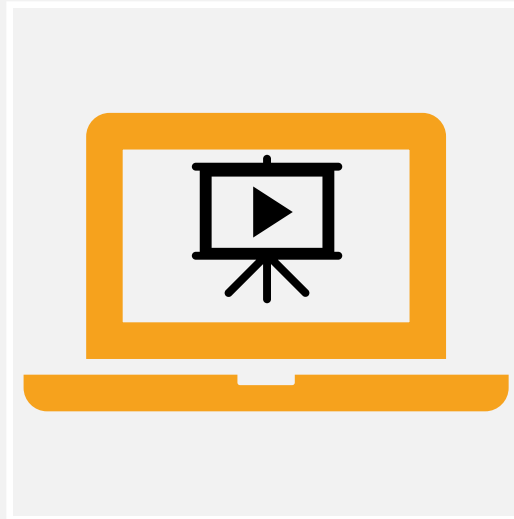
- Software development is a **marathon, not a sprint**. My vision is to see more “**File Over App**” software that puts users in control of their data. As for the future... an **AI-powered accounting automation**? Maybe... but maybe not 😅

What's next, you may ask?

What about an LLM-powered automatic book cooking feature?

LISTENING

The INTERNET is killing old PC hardware



There will be quiz after the Listening Activity!

- https://www.youtube.com/watch?v=TE_ePuGAvPM

PRESENTATION TIME!

Overall 20%

5% Introduction of self and the topic

10% Presentation content(English is favoured)

5% Presentation skills and using English

You have 5 Minutes, make it count!



WORDS OF THE WEEK

Obsolete – no longer in use or relevant

Lock-in – being restricted or trapped in a system

Durability – ability to last over time

Scalability – ability to handle increasing workload or growth

Sandboxing – isolating software processes for security

Marathon (metaphorical use) – a long and difficult process

Auditable – able to be officially examined or verified

Integrity (data integrity) – maintaining accuracy and consistency

Competing (as in services) – rivaling another in the same field

Exposure (business) – gaining visibility and recognition

Faction – a small, organized dissenting group

Iteration – repeated process to improve a product

Mitigate – reduce or lessen negative effects

Proprietary – owned by a private entity, not open-source

Repository – storage location for files/code (technical term)

Formatting – structuring or arranging content properly

Infamous – well-known for negative reasons

Empowering – enabling someone to have more control

Reliance – dependence on something

Adoption (technology) – process of accepting and using new tech

NEXT WEEK ARTICLE

- <https://www.abortretry.fail/p/intel-the-cpu-company>

Intel the CPU company

Making the Micros Mighty

FEB 03, 2025



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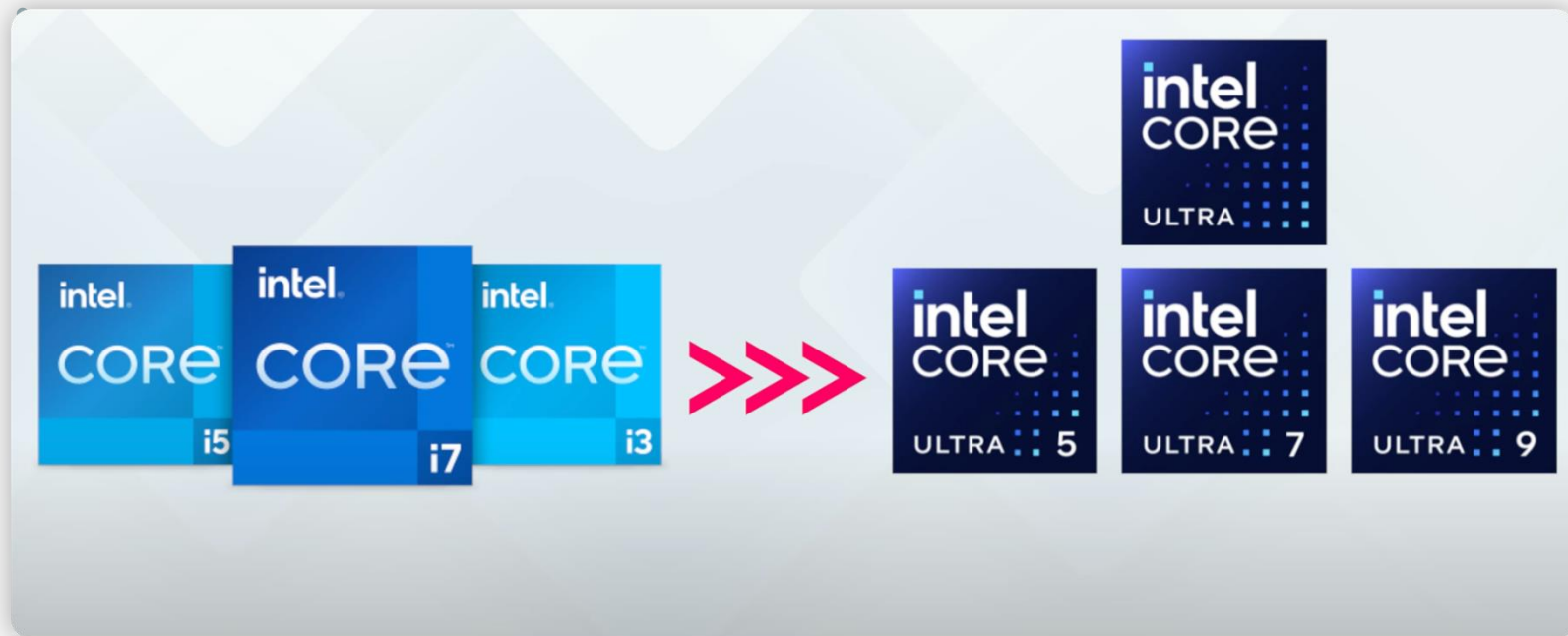


Share

This is the fourth entry in a multipart series. You may be interested to read about [Shockley Semiconductor](#), [Fairchild Semiconductor](#), [the start of Intel](#), and [the rise of the 8086](#).

NEXT WEEK VIDEO

- <https://www.youtube.com/watch?v=PT787d9odKk>
- **Intel Processors Explained (2025): Super Easy Guide**





EOF*

*End of Fun/File