



# חדר הכיתה של העתיד: כלי GEN AI ללמידה יעילה וחדשנית

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Solution Architect  
Education Vertical  
AWS Israel

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Techno Pedagogical Expert

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Campus IL CTO  
Technology Group Manager



# Generative AI



**Summarization**

**Q&A**

**Generating content**

**Data extraction**

**Chatbots**







# BUILD A DATA FOUNDATION TO FUEL GENERATIVE AI

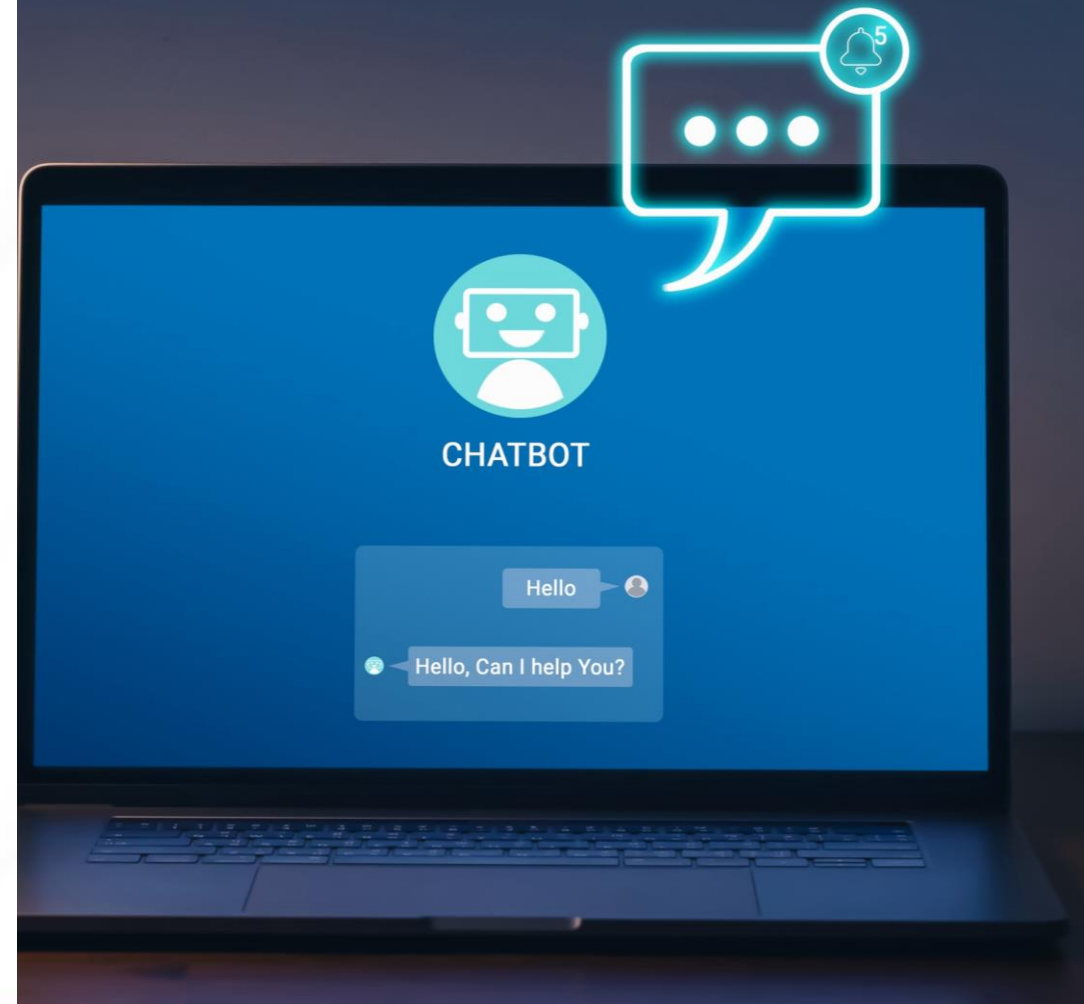
## AI platform for enhanced academia

### The objectives

Video content (Text extraction, Translation, Analysis)  
Summarization & Intelligent ChatBot on content

### The data sources

-  Learning Management System interaction data
-  Video lecture viewing data
-  Student library transactions
-  Textbook content





## הקמפוס של קמפוס IL Save The Date

### משחקים ומשחוק

שילוב משחקים  
לעידוד למידה פעילה



Save The Date  
אוגוסט 2024

### רכיבי סקר

כיצד רכיבי סקר גורמים לעידוד  
לפעולה בקרב הלומדים?



Save The Date  
יוני 2024

### רכיבי כתיבה

#### בקורסים דיגיטליים

כיצד כתיבה משפרת  
ביצועי למידה?



Save The Date  
04.04.2024

ללמוד ולהתמקצע בלמידה דיגיטלית מכל מקום ובכל זמן



# Gen-AI Use Cases



## Enhance experiences

**STUDENT ASSISTANTS**

**VIRTUAL TUTORS**

**AUTOMATIC ESSAY  
FEEDBACK**

**LESSON  
PERSONALIZATION**

**MITIGATE AT RISK  
STUDENTS**

## Boost productivity & creativity

**COURSE  
RECOMMENDATION**

**CONVERSATIONAL  
SEARCH**

**TOPIC SUMMARIZATION**

**LESSON CONTENT  
CREATION**

**DATA TO INSIGHTS**

## Optimize processes

**PERSONALIZED STUDENT  
SERVICES**

**DOCUMENT PROCESSING**

**DATA AUGMENTATION**

**CYBERSECURITY**

**OPTIMIZE RESOURCE  
ALLOCATION**

# ACCELERATE YOUR AI JOURNEY HACKATHON

## Challenges

- Enhance customer experience
- Boost employee productivity
- Optimize business processes
- Turn media into insights

## When?

Hackathon - June 10, 2024

 **AWS Offices**  
121 Menachem Begin street, Tel Aviv



**Ariel Eshkol** • 2nd  
 Certified AWS cloud architect and PMP/Agile tech... [Connect](#)  
 4h • Edited

**#GENAI** is a real revolution which already changes the world, the impact is growing every day exponentially. It was a pleasure participating (and winning) in AWS Gen AI Hackathon and learning how to harness this amazing power to achieve business goals . The Journey included building a solution for real business needs using AWS Gen AI services. Thank you [Sefi Avrech](#) and [Orit Soskin](#) [Yahav](#) for mentoring , [Orly Blum](#) for leading the team . creating the business solution and [Plekhanov](#) for building zero bugs . Thank you [Hener](#) and [oded shpir](#)

## What did you like most about the Hackathon?

It is a huge starting point for me



החשיפה לרעיונות נוספים בארגונים שונים

Really good work with mentors, we've learned a lot. Thanks

The mentors were great professionals, it was amazing to work with them

The atmosphere in the event, the people and mentors were all great.

To win



**Sarit Katz** • 1st  
 Development Manager | AI | Salesforce  
 1d

מקום שני ב-Aws GenAI Hackathon זו גאווה אישית ומשרדית! פתחנו פתרון מתקדם לניתוח גיוא-מרחבי באמצעות Computer vision לאיתור זיהוי מפגעים סביבתיים. המערכת יכולה לזהות מגוון מפגעים כגון: משחטות רכב, מטמנות ועוד. מדובר בפיתוח חדשני וייחודי בנושא, שיחסוך מיליארדי שקלים לקופת המדינה ויבטיח עתיד ירוק לדורות הבאים.

תודה ל [Alon Shefer](#) על האמון והשותפות לאורך הדרך. הערכה ענקית ל [Guy Rain](#) ו [Menucha Saller](#) שבעזרתכם הקסם קרה!

**Elie Boujenah** • 2nd  
 Data Scientist Team Lead at Israel Ministry of Finance | Data Sci...  
 1d

Thank you, [Yariv Haelyon](#) , for your kind words and long discussions. It was an honor and a privilege to be part of such an innovative and dedicated team at the [Amazon Web Services \(AWS\) Israel Public Sector 2024 Hackathon](#). The hard work and collaboration among all members truly paid off and we are thrilled with the impact our project can have on simplifying import regulations and expediting refunds for Israeli citizens.

I am grateful for the recognition and support from the entire team, including [Myriam Ben-Arousse](#) , [Yoel Draï](#) ,and [Sefi Avrech](#) . This victory is a testament to our collective effort and the seamless integration of our skills and dedication.

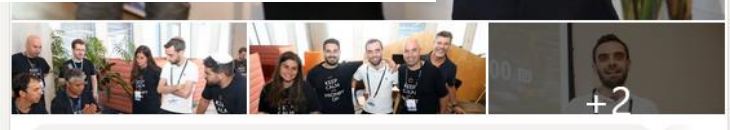
...ration and excellence together. encouragement



You and 37 others 11 comments · 3 reposts

Reactions

+30



What impact can innovation and excellence have in the professional ... 3 comments

Reactions

+39

Like Comment Repost Send

Like Comment Repost Send

# Thank you!

**Idan Nabati**

idnabati@amazon.com





# Campus IL

Learning together winning together


פדגוגיה מחקר וטכנולוגיה

[campus.gov.il](https://campus.gov.il)

# Mission statement

הקורסים הטובים ביותר  
לכולם בחינם.

- **1/4 Million** Active Students
- **600+** courses by **80+** partners
- **13 millions** video watches last year sum to **93+ playback years**



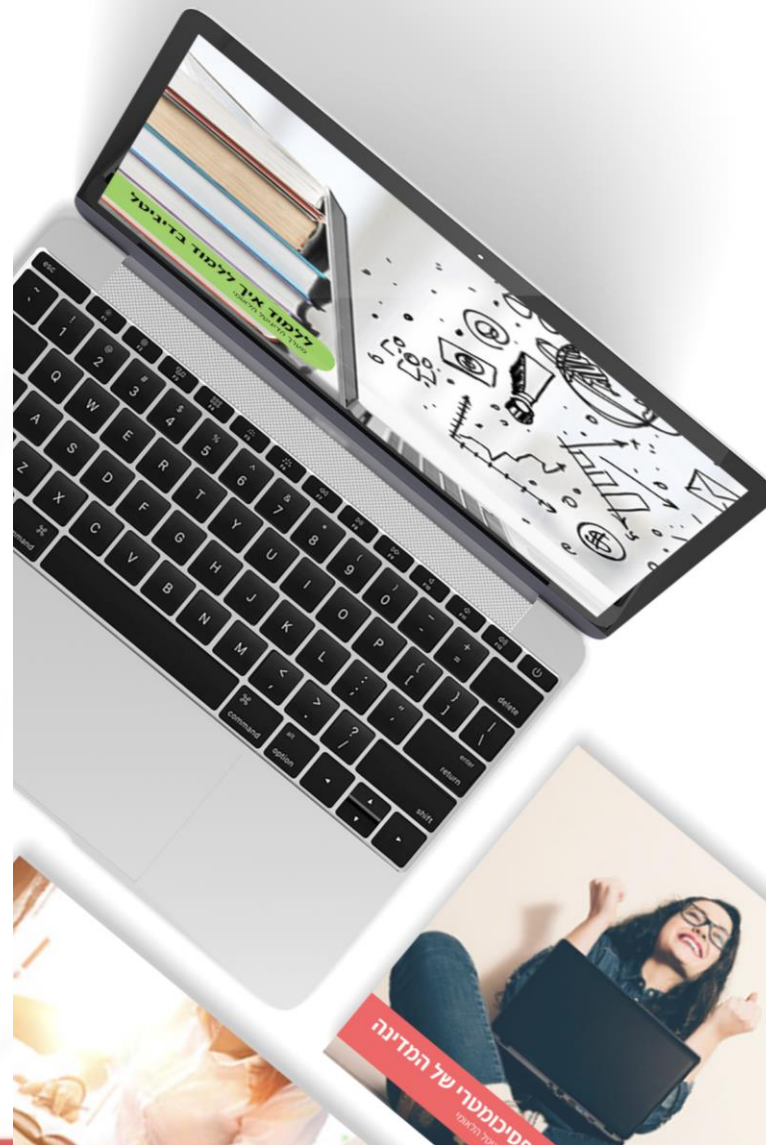
**MOOC**

# The problem

Static  
Generic  
Exercises

*1 size fits all*

Teacher  
Time Spent  
in Exercise  
Creation

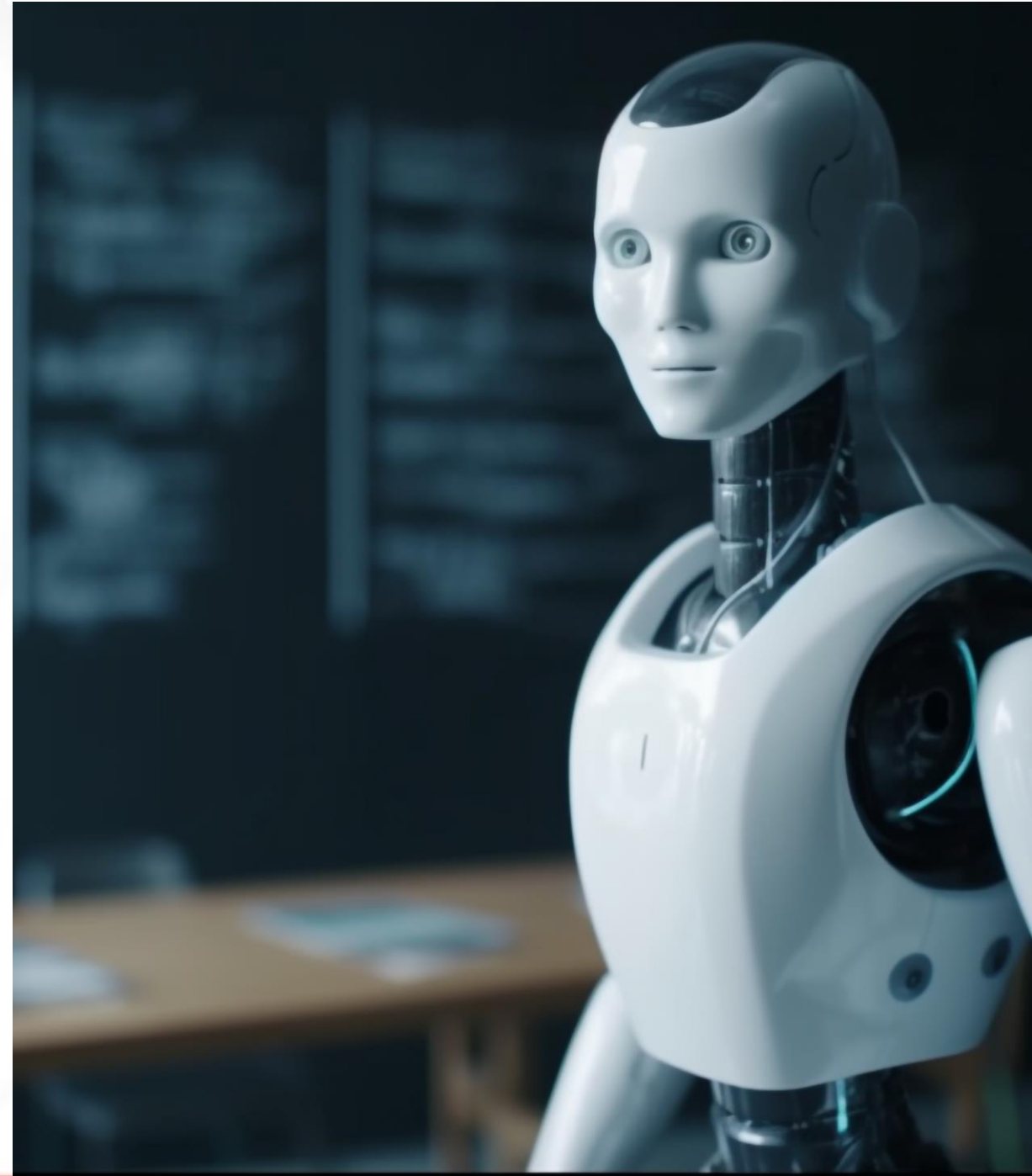


# The solution

**P**exor

**P**ersonal **E**xercise creator

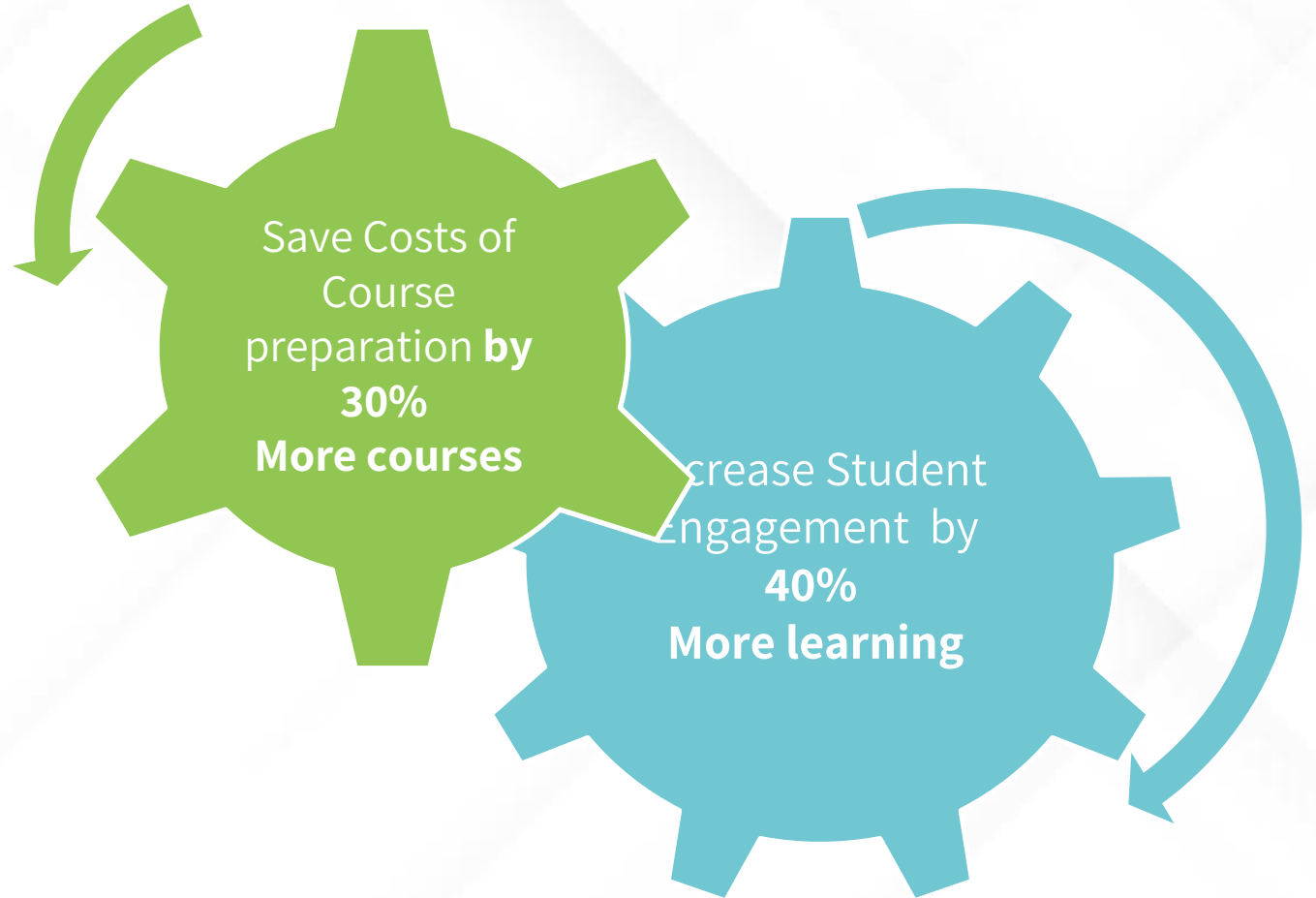
Gen AI Based module that analyze course videos combined with student profile & performance and come up with personalized AI generated exercises.





# Impact

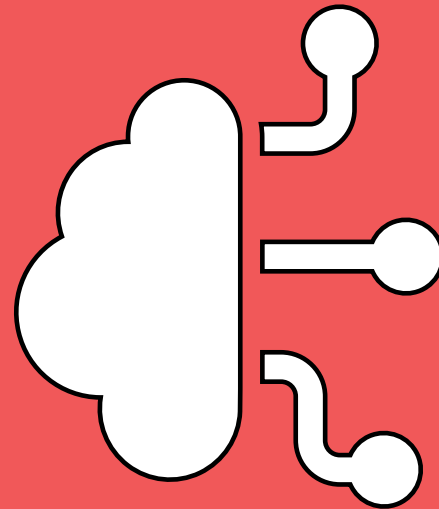
**Expected  
Benefits  
leads to  
More  
Learning**





# Zoom Inside the solution

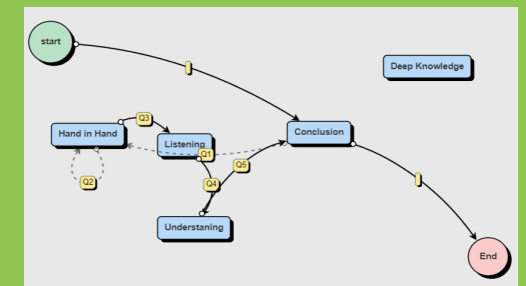
1. Lecture Video
2. Student Profile
3. History of Exercise Journeys
4. The correct pedagogic Prompt

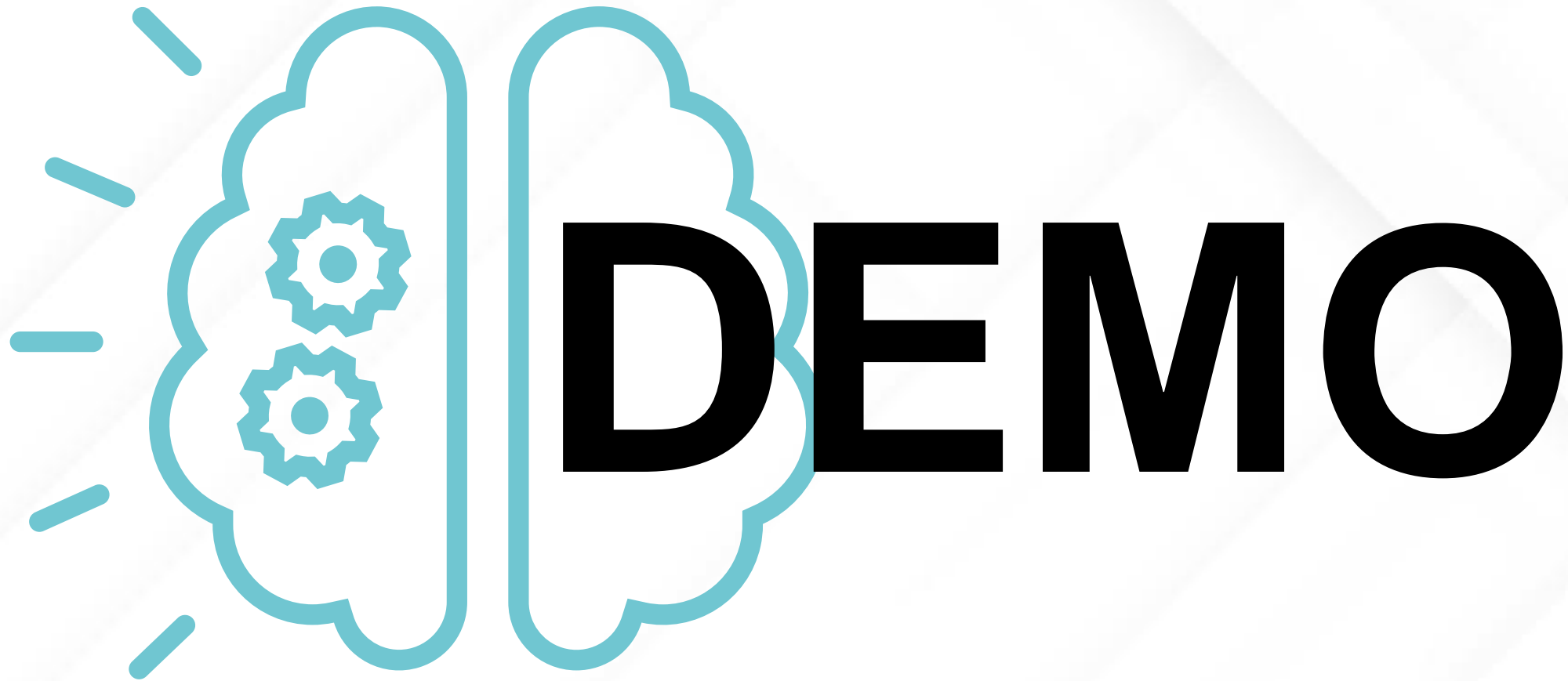


aws Gen AI

## Generated Exercises

- Few Levels of understanding
- Variety of types
- Personal (language, gender, age...)









# DEMO

מערך הדיגיטל הלאומי  
نظام الדיجیتال الوطني  
Israel National Digital Agency

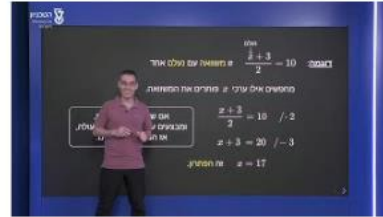


IL קמפוס

Pexor - Personal EXercise creatOR



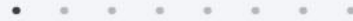
שתי משוואות בשני נעלמים - פתרון על ידי בידוד נעלם אחד



משוואות - דוגמה



רקע לחשיבות נושא השדה - 1



שתי משוואות בשני נעלמים - פתרון על ידי בידוד נעלם אחד

Watch later Share

שיטה לפתרון שתי משוואות בשני נעלמים: בידוד נעלם אחד

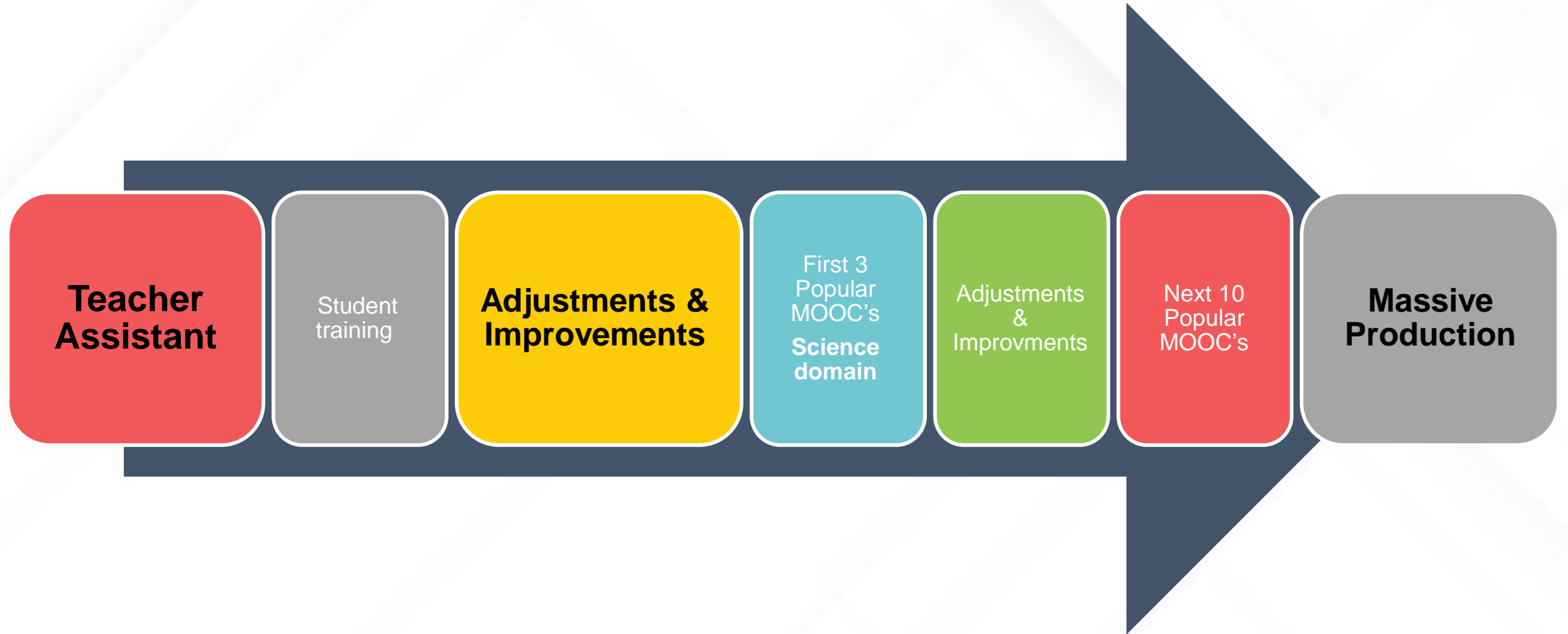
שלבי הפתרון

- מבודדים נעלם אחד מאחת המשוואות
- מציבים אותו במשוואה השנייה
- פותרים ומוצאים את הנעלם השני
- מציבים בחזרה במשוואה הראשונה
- פותרים ומוצאים את הנעלם הראשון





# RoadMap (1 year)



# THANK YOU

It was fun!!



**Vladimir**

Technical Architect & Team  
Leader

Campus IL



**Jamal**

Open Edx  
Product Expert

Campus IL



**Hagit**

Techno-Pedagogical Expert

Campus IL



**Shahar**

CTO &  
a future CS teacher

Campus IL



# **Backup Slides**





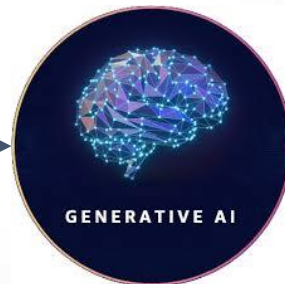
Dan

## Traditional LMS

1. Watch a course unit

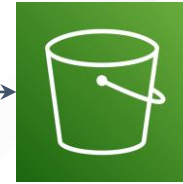


2. Ask for personalized exercise



## Pexor - Generative AI

3. Audio file



4. Speech to Text



5. Transcribe Service output

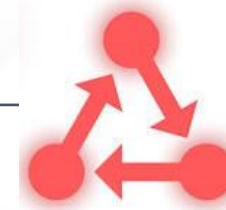


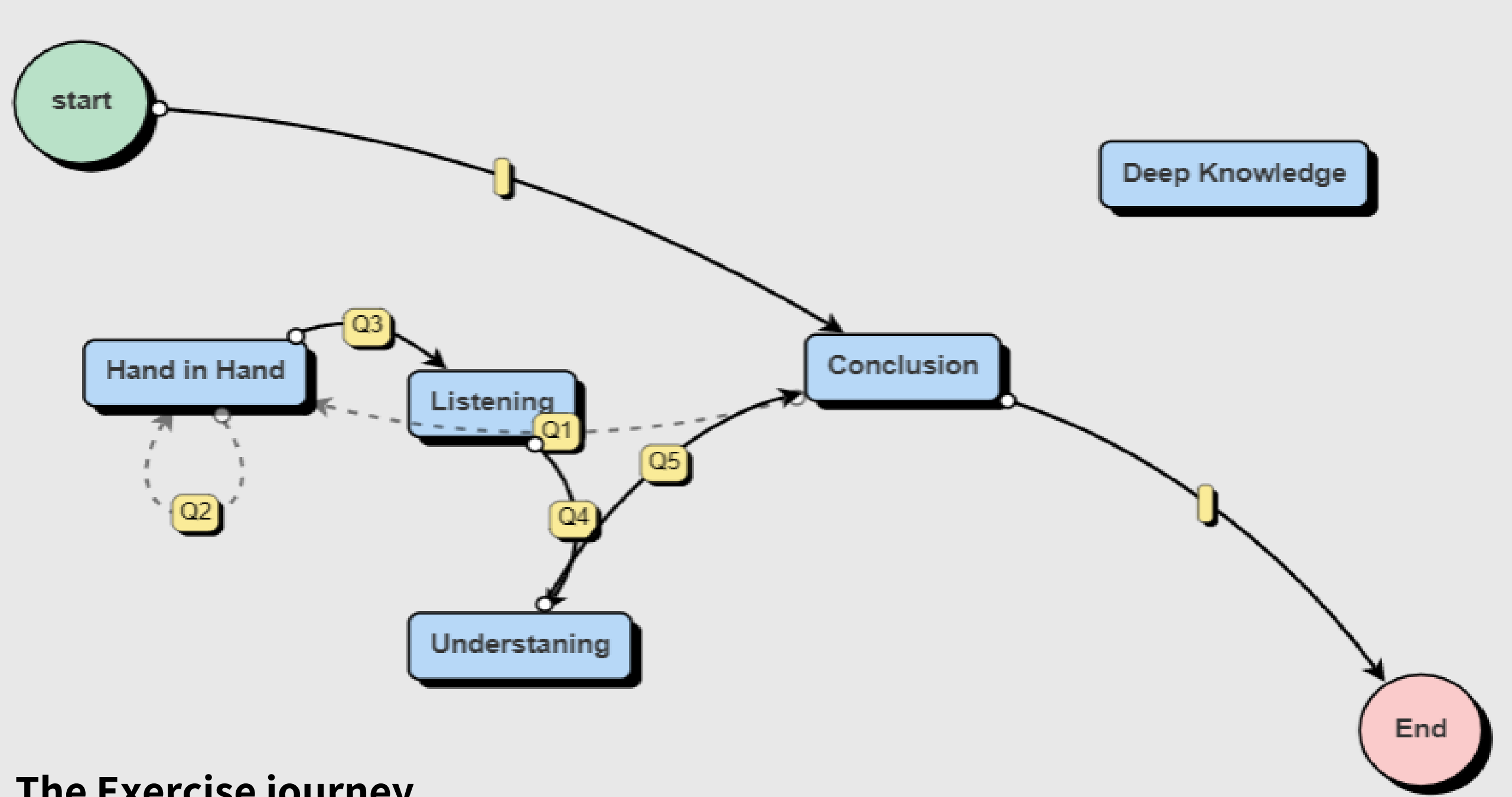
7. Train the model by feed the journey back in



5. Generate Personalized Questions grouped to 5 levels

6. Choose Exercise journey Based on student' performance





**The Exercise journey**