

Vocational English II
(Mesleki Yabancı Dil II)
Week 12



Engineering Faculty
Computer Engineering

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INTRODUCTION

THIS WEEK WE WILL WORK ON

Machine Learning

Gemini 2.5 Pro Preview: even better coding performance

MAY 6, 2025

[Logan Kilpatrick](#)

Senior Product Manager

Gemini API and Google AI Studio

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- <https://developers.googleblog.com/en/gemini-2-5-pro-io-improved-coding-performance/>

INTRODUCTION TO GEMINI 2.5 PRO PREVIEW (I/O EDITION)



We're excited to release Gemini 2.5 Pro Preview (I/O edition) today.



Features even stronger coding capabilities.



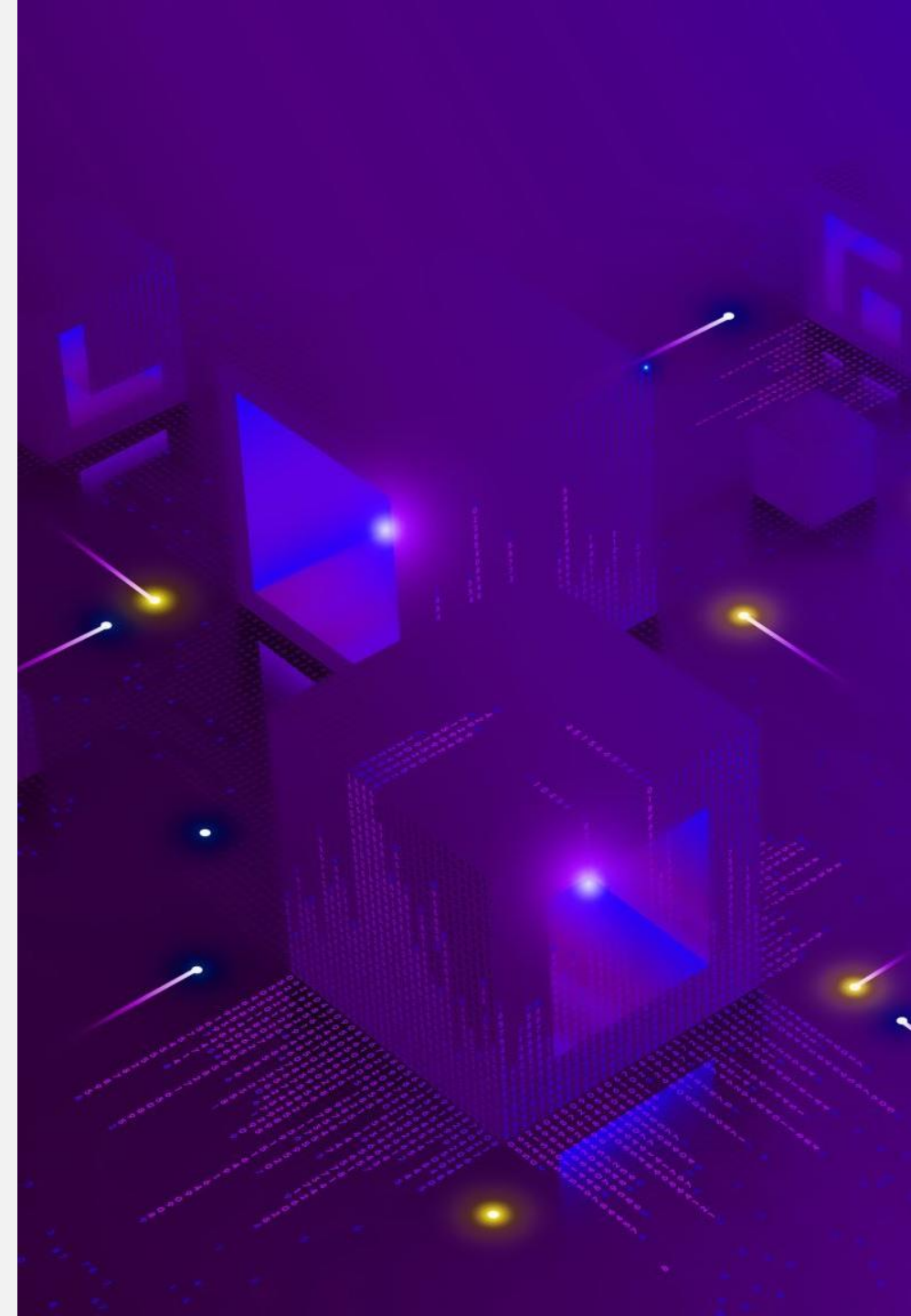
Released early to get into developers' hands before Google I/O.



Expect meaningful improvements in front-end and UI development, fundamental coding tasks, and agentic workflows.

BEST-IN-CLASS FRONTEND DEVELOPMENT

- Gemini 2.5 Pro **ranks #1** on the WebDev Arena **leaderboard**.
- Measures human preference for building **aesthetic** and functional web apps.
- Powers **Cursor's** code agent and collaborations with Cognition and **Replit**.
- Pushing **frontiers** of **agentic** programming for developers.



DEVELOPER FEEDBACK ON GEMINI 2.5 PRO



“We found Gemini 2.5 Pro to be the best **frontier** model for ‘capability over latency’ ratio.” – Michele Catasta, Replit



“Felt like a more senior developer because it made correct judgment calls and good **abstractions.**” – Silas Alberti, Cognition

GEMINI 2.5 PRO'S DEEP UNDERSTANDING OF CODE

- Powerful **reasoning** combined with coding understanding.
- **Go-to** model for developers.
- **Unlocking** new possibilities for transforming and editing code.

```
mirror_mod = modifier_ob.  
Set mirror object to mirror  
mirror_mod.mirror_object =  
operation == "MIRROR_X":  
mirror_mod.use_x = True  
mirror_mod.use_y = False  
mirror_mod.use_z = False  
operation == "MIRROR_Y":  
mirror_mod.use_x = False  
mirror_mod.use_y = True  
mirror_mod.use_z = False  
operation == "MIRROR_Z":  
mirror_mod.use_x = False  
mirror_mod.use_y = False  
mirror_mod.use_z = True
```

```
selection at the end -add  
mirror_ob.select= 1  
modifier_ob.select=1  
context.scene.objects.active  
("Selected" + str(modifier_ob.  
mirror_ob.select = 0  
= bpy.context.selected_object  
data.objects[one.name].select  
print("please select exactly
```

--- OPERATOR CLASSES ---

```
types.Operator):  
X mirror to the selected  
object.mirror_mirror_x"  
mirror X"
```

```
context):  
context.active_object is not
```


NEW
CAPABILITIES:
VIDEO TO CODE



Gemini 2.5 Pro scores 84.8%
on the VideoMME
benchmark.



Combines video
understanding with coding.



Creates **interactive** apps from
a single YouTube video.

EASIER FEATURE
DEVELOPMENT AND
UI CREATION

Strong at front-end development:

- Matches style properties like colors, fonts, margins.
- Generates **CSS** automatically.
- Example: Adding a video player in Gemini 95 starter app.

QUICK
CONCEPTS TO
WORKING APPS

Helps with functionality and bbring ideas to life eautiful **UI**.

Example: **Dictation** starter app with responsive design, animations, and button effects.

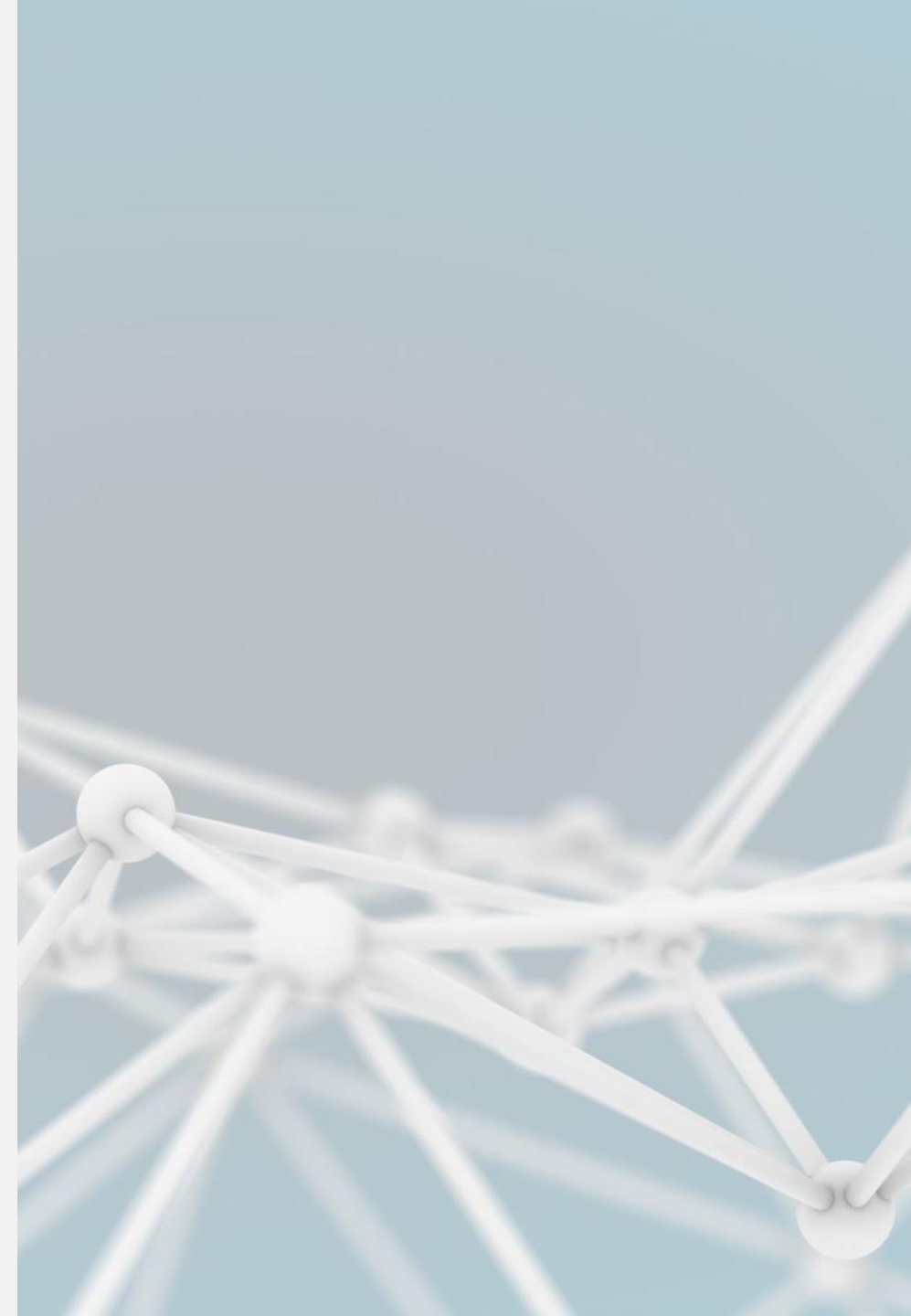
Designed microphone UI animation.

START BUILDING WITH GEMINI 2.5 PRO

Available with Gemini API in Google AI Studio and on Vertex AI.

Addresses feedback:

- **Reduces** function calling errors.
- Improves **trigger** rates.
- **No action needed** for existing users; updated automatically to version 05-06.



What will you build?

Push Gemini to the limits of what AI can do using the Gemini API

https://www.youtube.com/watch?v=e6c_uwQwV9A

LISTENING
ACTIVITY

Google AI Studio: the Death of Software Tutorial Videos?

WORDS OF THE WEEK

1. **Gemini 2.5 Pro** Google's updated frontier LLM model with stronger coding and front-end development abilities
2. **Google AI Studio** A platform where developers can interact with Gemini models, create workflows, and build AI-powered apps.
3. **Agentic Workflows** Autonomous AI systems that can reason, decide, and act across different tasks with minimal human input.
4. **VideoMME Benchmark** A benchmark used to evaluate an AI model's video understanding abilities.
5. **Frontend Development** Designing and coding the visible parts of websites or apps; Gemini 2.5 Pro excels at this.
6. **Conditional Formatting** Using rules in tools like Google Sheets to automatically format data based on its value; AI helps automate this.
7. **Cursor Code Agent** A coding assistant built on Gemini that helps automate coding tasks.
8. **Automation Platform** Software that automates repetitive tasks; shown in the video using Make.com and Gmail triggers.
9. **Create Completion Module** A module (in Make.com) that sends a prompt to a model like GPT-3.5 Turbo to generate text responses.
10. **Prompt Engineering** Crafting specific input instructions to guide the AI model to generate the desired output.
11. **Latency-sensitive Tasks** Tasks where fast response time from AI is crucial; Gemini 2.5 Pro balances speed and power.
12. **Function Calling** The ability of LLMs to correctly call specific functions or APIs in applications.
13. **Screen Understanding AI** AI like Gemini that can "see" the user's screen, recognize context, and assist in tasks live.
14. **Interactive Learning App** Applications created with AI that teach users interactively, like Video-to-App demos in Google AI Studio.
15. **Subtitles from Audio** Using AI to automatically generate captions by analyzing audio tracks, shown with DaVinci Resolve.
16. **Stroke and Drop Shadow (UI terms)** Advanced formatting features in text elements that AI models now help users adjust faster.
17. **Dynamic UI Adaptation** AI's ability to adjust or suggest changes in user interface designs based on screen elements and context.
18. **GPT-3.5 Turbo** A cheaper, efficient LLM model suggested for drafting email responses in the automation example.
19. **Text Content Mapping** Connecting specific fields (like email body text) into AI prompts for automation purposes.
20. **Novel Idea Generation** Human creativity still needed for coming up with new ideas; AI can replicate, but not invent new missions by itself (yet).



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