

# Những tính năng đã cải thiện

## Cấu trúc những tính năng:

### Sign-up:

- Khi đăng nhập vào sẽ được sign-up bằng email, login bằng email.
- Những thông tin tài khoản sẽ được lưu trên Firebase

| Search by email address, phone number, or user UID |           |              |              |                            | Add user |  |
|--|-----------|--------------|--------------|----------------------------|----------|--|
| Identifier   | Providers | Created ↓    | Signed In    | User UID                   |          |  |
| trinhhungch2@gmail.co...                           | ✉         | Mar 16, 2025 | Mar 16, 2025 | dT3fQnfGqCSPJJVGdwE8swF... |          |  |
| trinhhungchi12@gmail...                            | ✉         | Mar 16, 2025 | Mar 22, 2025 | I7ae5FFcLCUsWW2nkZFgrCo... |          |  |

### Storage-exam:

- Những bài prac/exam sẽ được lưu cấu trúc như hình trong Supabase
- Khi ấn vào prac/exam, trang sẽ tự động có những bài task

|  | id int4 | image_url text                           | title text   | description text                     |
|--|---------|--|--------------|--------------------------------------|
|  | 1       | https://ssnekclgnzucfkrfyeso.supabase.co | IELTS Task 1 | You should spend about 20 minutes on |
|  | 2       | https://ssnekclgnzucfkrfyeso.supabase.co | que          | que                                  |
|  | 3       | https://ssnekclgnzucfkrfyeso.supabase.co | đã           | đã                                   |
|  | 4       | https://ssnekclgnzucfkrfyeso.supabase.co | IELTS Task 1 | You should spend about 20 minutes on |

### Upload-exam:

- Cần 1 trang upload để có thể tự động đăng task chứ không cần vào database




## Đăng bài Task 1

|                 |               |          |                            |          |
|-----------------|---------------|----------|----------------------------|----------|
| Tiêu đề bài thi | Mô tả bài thi | Chọn tệp | Không có tệp nào được chọn | Đăng bài |
|-----------------|---------------|----------|----------------------------|----------|

## Save-exam:

- Khi ấn Submit, bài viết và url ảnh sẽ được lưu vào Firebase

```
-0LyT_iW71bDo0wk1Dbr +   
  content: "The given bar charts illustrate the percentage of school-aged and college-aged populations  
  imageUrl: "https://ssneklgnzucfkrfyeso.supabase.co/storage/v1/object/public/exam-images/task1  
  timestamp: "2025-03-22T15:30:46.164Z"  
  wordCount: 202
```

## Front-end:



## Back-end:

- FastAPI kết hợp với module OpenCV(phân tích đồ thị) + Tesseract(Nhận diện chữ trên ảnh) để chấm điểm bài thi
- Ưu điểm: Chạy được, thay vì chấm điểm chỉ có dữ liệu người làm bài đưa vào mà không đọc được đề bài
- Nhược điểm: Chưa đọc được chi tiết các cột.

```
{
  "expected_text": "The given bar charts illustrate the percentage of school-aged and college-aged populations enrolled in secondary and higher education across four regions i
n 2000, categorized by gender.\\n\\nOverall, Europe had the highest enrollment rates in both secondary and higher education for both males and females. In contrast, Sub-Sahara
n Africa exhibited the lowest figures, particularly in higher education. Additionally, gender disparity was more evident in certain regions, especially in higher education.\\n
\\nIn secondary education, nearly 100% of school-aged males and females in Europe were enrolled, while East Asia followed with an almost equal percentage for both genders, tho
ugh slightly lower. In Latin America, the male enrollment rate was somewhat lower than that of females. Meanwhile, Sub-Saharan Africa had the lowest secondary education enroll
ment, with males having a higher percentage than females.\\n\\nRegarding higher education, Europe once again led with about 70% of males and over 70% of females enrolled. Lati
n America and East Asia had considerably lower participation rates, with a slight advantage for females in Latin America. Sub-Saharan Africa had the lowest figures, with male
enrollment being only slightly higher than female enrollment.\\n\\nIn summary, while secondary education showed relatively balanced gender participation, higher education disp
layed a more pronounced gap, particularly in regions with lower enrollment rates.\\n",
  "exam_text": "Secondary Education (2000)\\n\\nMale\\n| 100 — 55 Female\\n| 69 — 40\\n\\nEurope Sub-Saharan Latin American Ea
st Asia\\n\\nAika\\nRegions\\n\\nHigher education (2000)\\n3.0 — 2.5 — 2.0 — 1.5 — 1.0 — 0.5 — 0\\n\\nEurope Sub-Saharan Latin East Asia\\n\\nAitica Amedcan\\nRegions",
  "chart_analysis": {
    "chart_type": "Bar Chart",
    "num_contours": 593
  },
  "score": {
    "Coherence & Cohesion": 7.5,
    "Grammatical Range & Accuracy": 6.1,
    "Lexical Resource": 5.5,
    "Task Achievement": 5.2,
    "Text Similarity": 0.4,
    "Chart Type": "Bar Chart",
    "Number of Elements in Chart": 593
  }
}
```

 Download