**PE04: Programming Exercise**

**Instruction**

**Contact Organizer Application**

Closely follow the textbook chapter 5 and Lecture 04.pptx to implement Contact Organizer application:

* PE04-1
  + Setting up the project structure
    - Follow textbook page169 step 1 to 6
* PE04-2 Implement services
  + 2.1 Recognition Service – text detection (Same as PE02)
  + 2.2 Extraction Service – contact information extraction
  + 2.3 Contact Store – save and retrieve contacts
  + 2.4 Storage Service – uploading and retrieving a file (Same as PE02)
* PE04-3 Implement RESTful endpoints
  + 3.1 Translate Image Information endpoint
  + 3.2 Save contact and get all contacts endpoint
  + 3.3 Upload image endpoint (Similar to PE02)
* PE04-4 Implement the web user interface
  + Index.html + scripts.js
* PE04-5 Deploy the Contact Organizer to AWS (Similar to PE02)

**Your task for PE04 is to:**

1. Complete above task
2. Please randomly try a couple of examples to see how it works

**Please make sure you remove all the running resources after finishing the task.**

**HINT**:

* Try to complete this PE as much as you can
* Feel free to follow the textbook’s GitHub codes if needed: <https://github.com/PacktPublishing/Hands-On-Artificial-Intelligence-on-Amazon-Web-Services/tree/master/Chapter05>
* Make sure completing task 2 to receive full credits

**Submit the items below to the PE submission page:**

* Please provide screenshots after completing task1 PE04-2.2, PE04-2.3, PE04-3.1, PE04-3.2, PE04-4 and PE04-5.
* Please complete task2, and screenshots of the results, and around 100 words of overall feelings completing this whole PE.
  + Make sure the PE module number and your name are written on the file name, e.g., "*PE04\_Name.docx").*