Graduation Project Week #3 Meeting Minutes

✳ Agenda

1. Presentation of research paper
2. Key Courses to Study
3. Dataset Visualization
4. Evaluation of Potential Datasets
5. Planning next steps for next week

✳ Meeting Points

- Research Discussion:
  - The presenter explained the research paper Deep Learning Approaches for Data Augmentation in Medical Imaging.
  - We had a thorough discussion about its techniques and potential applications to our project.

- The Dr. recommended the following courses as essential:
  - The first 4 courses in the Deep Learning Specialization by Andrew Ng.
  - The first 2 courses in the TensorFlow: Advanced Techniques Specialization.
  - All 3 courses in the Generative Adversarial Networks (GANs) Specialization.

- Dataset Visualization:
  - We discussed the visualization of the emidec dataset.
  - The Dr. advised it is better to work with the data as numpy arrays for efficient processing

- Potential Datasets:
  - We reviewed 4 potential datasets and will evaluate their usefulness for the project.

✳ Attendees

Hana Hesham (Leader)
Khaled Badr (Presenter)
Omar Nabil
Omar Emad

✳ Planning Next Meeting

- Continue progressing through the Coursera courses.
- Download and familiarize ourselves with DICOM viewers, such as 3D Slicer and ITK-SNAP.
- Research software tools to generate random shapes with adjustable parameters and irregular shapes, and explore methods to merge two shapes together.
- Create an Excel file to catalog all the datasets we are working with, specifying data links and whether each dataset is labeled or not.
- Next Meeting Scheduling
  - The next team meeting is scheduled for 24th September at 9:00 PM.