Ain Shams University
Faculty of Computer & Information Sciences

جامعة عين شمس
كلية الحاسبات و المعلومات

Graduation Project Proposal

Exam Generator

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Introduction

Natural language processing is a subfield of linguistics, computer science, and artificial intelligence concerned with the interactions between computers and human language, in particular how to program computers to process and analyze large amounts of natural language data.

NLP is one of the most prevalent problems. NLP has many applications such as text summarization, question answering, question and answer generation, and many others. Question generation is a process in which a program generates questions on the given text and answers said questions.

Motivation

Exercises on teaching material are not always available. This puts a lot of pressure on both educators and students. For educators, this pressure comes from coming up with quizzes from teaching material. For students, this pressure comes from summarizing studying material and finding questions on it. These tasks are time-consuming therefore automating them would save time and money.

In the age of the internet, information is widely available, but self-learning is still a hard endeavor due to lack of exercises and practices. This can be solved by providing a way of summarizing articles into question-and-answer pairs. This helps learners to better understand the subject and gauge their understanding.

Objectives

A web application that helps students practice and teachers write exams with the following features:

1. Summarize text into question-and-answer pairs.
2. Generate different types of questions.
3. Create a user-friendly interface in the form of a web application.

Work Plan

Project Activities	Start Date	End Date
Literature Review & Survey (Planning & Analysis)	1 October	15 November
Project Design, UI Design (Design)	15 November	31 December

Question generation model(s) (Implementation)	1 January	15 February
Front-end and back-end development (Implementation)	15 February	31 March
Integration testing models and app (Testing & Integration)	1 April	31 May

References

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