

# Q&ARABIC - AN AUTOMATIC QUESTION & ANSWERING FAQ GENERATOR

## PROJECT SUMMARY

An automatic Question & Answer system specifically designed for the Arabic language, utilizing NLP techniques to generate questions and their corresponding answers from a given text or document.

## AIMS

- To develop an automatic Q&A system for Arabic documents using Machine Learning.
- To enhance the accuracy of Arabic question generation and answer prediction, improving upon the current state-of-the-art models.
- To broaden the scope of application of the Q&A system and integrate it into a web-based platform, enabling its use in a wide range of areas such as education, customer service, and content creation for generating FAQs and exams for Arabic documents.

## MOTIVATION

- A gap exists in the automatic question generation and answering fields for the Arabic language.
- The widespread use of websites and online platforms, thus the importance of FAQs, and the difficulties and inconveniences of manually creating them.
- The system saves time, resources and enhances user experience by automating question generation and answering.

## PROPOSED SOLUTION

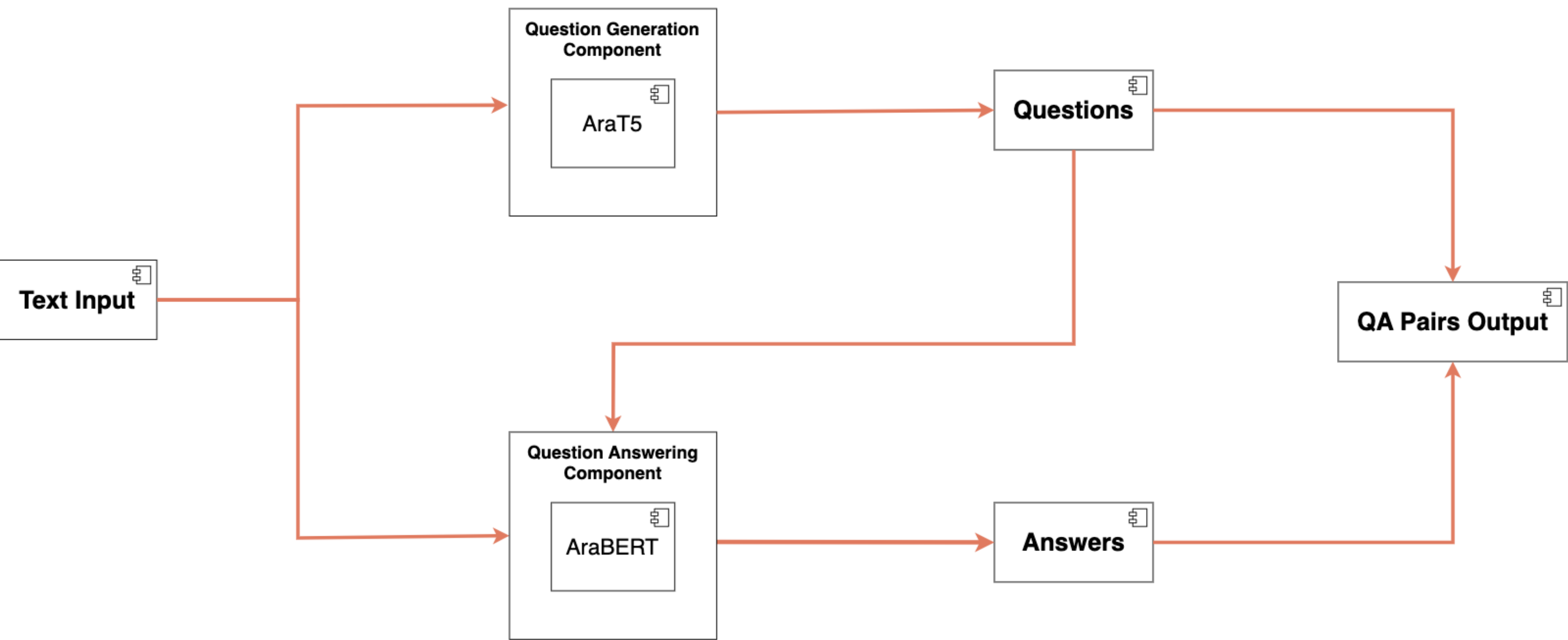
- A unique tool that generates questions and provides answers in Arabic, designed to accommodate the complexity of the Arabic language.
- It is developed using state-of-the-art Deep Learning frameworks like Transformer Models.

## USED MODELS

- AraT5 for question generation
- AraBERT for question answering



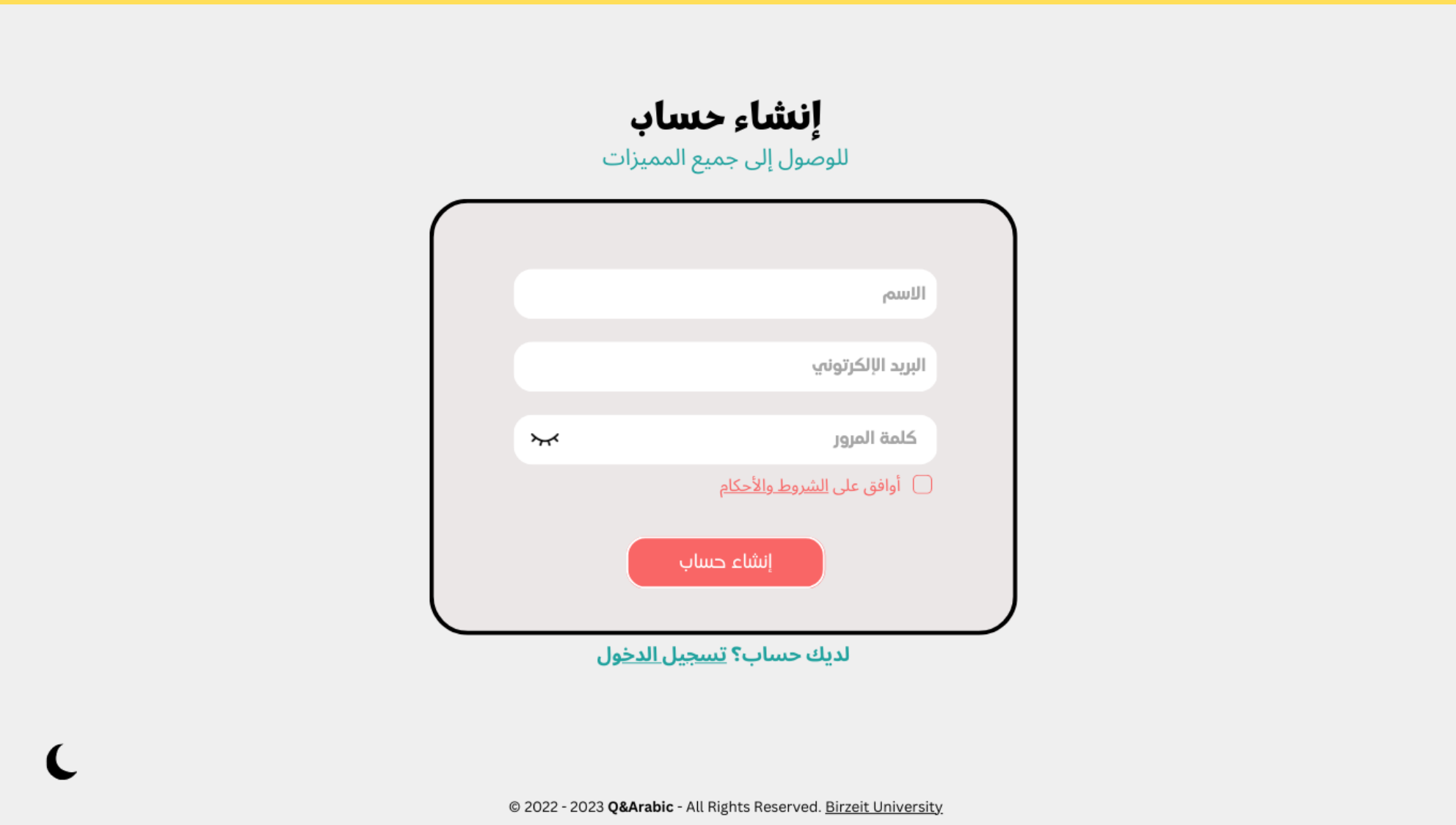
## SYSTEM ARCHITECTURE



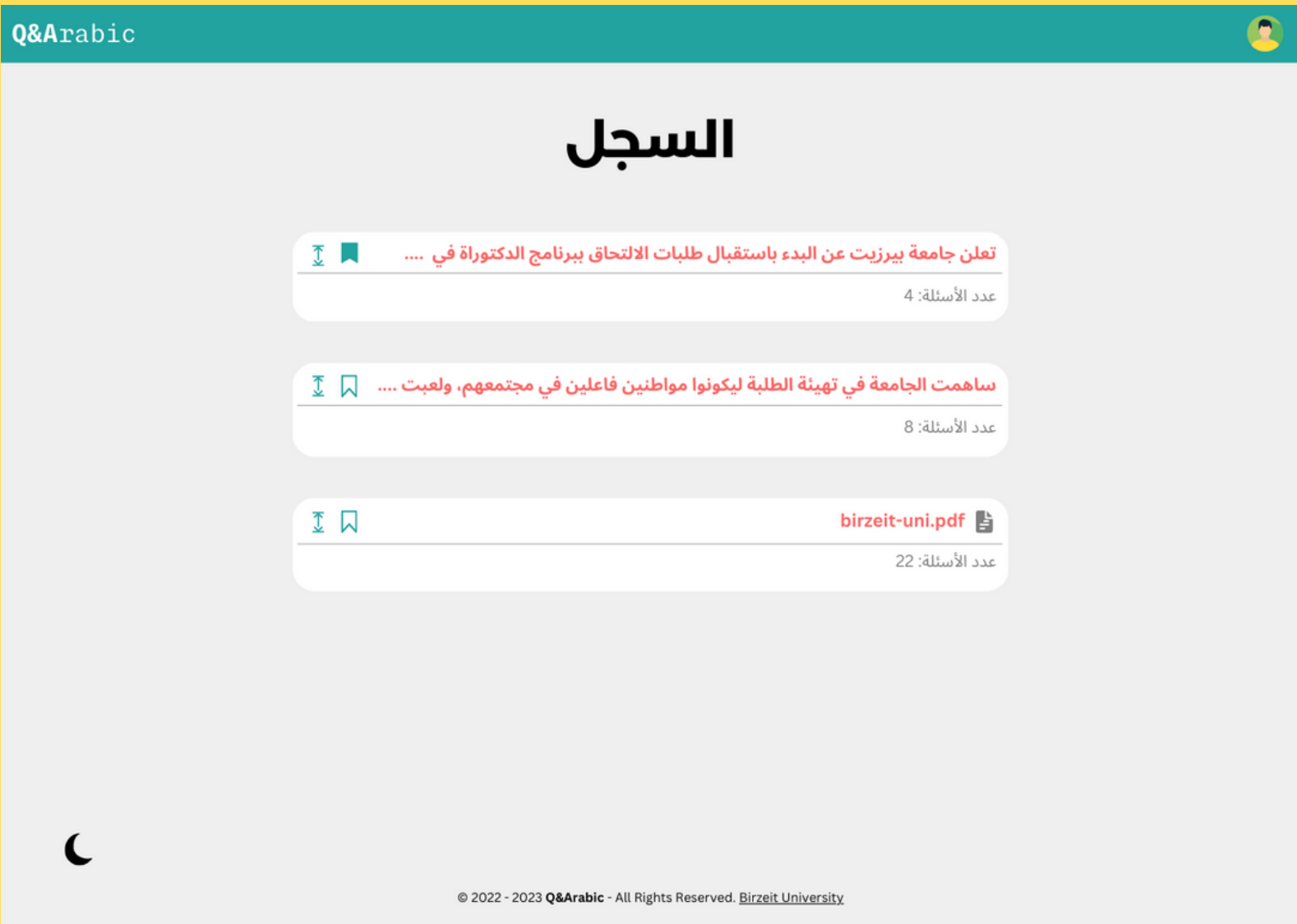
## DATASETS

Dataset	# Q/A Pairs	# Paragraphs	# Articles
Arabic-SQuAD	48,344	10,364	-
AAQAD	17,911	3,381	299
TyDiQA	16,425	15,726	-
MLQA	5,852	5,085	2,627
ARCD	1,395	465	155
Total	89,927	35,021	-

## UI DIAGRAMS



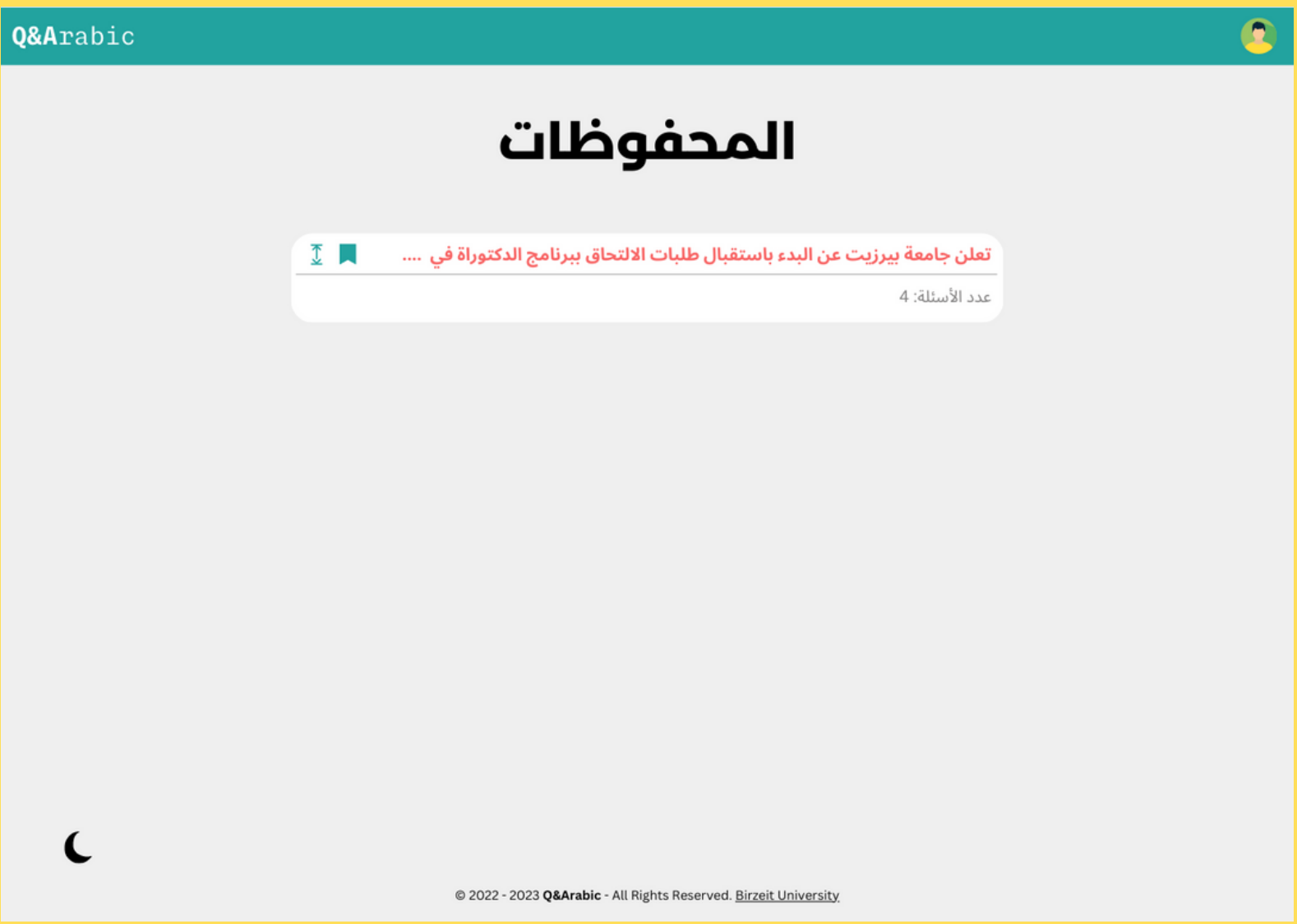
Registration Page



History Page



Main Page (File Upload)



Bookmark Page



Main Page

