



**Department of Computer Science
St. Francis Xavier University
Presents**

**Question and Answer System for Impact of Social Determinants of
Health on COVID-19**

by

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Online presentation (link will be sent in follow up email)

The Question and Answering system (QA), a branch of NLP (Natural Language Processing) aims at retrieving answers for natural language questions automatically, without human intervention. The answers retrieved are from databases or documents. The demand for information retrieval systems is proportional to the growth of digital data, especially in the healthcare domain where there is a large flow of unstructured data. The major growth factor for NLP in this domain is the need for predictive analytics to reduce health risks. Semantic Web technologies enable people to create data stores on the Web, build vocabularies, and write rules for handling data. The combination of NLP and semantic web technologies can be used in any application where there is a large amount of unstructured data. There are two stages in this process, In the first, we convert the unstructured data to structured data using NLP techniques and in the second stage, we link the data extracted in step one with pre-existing data present in any database/knowledge base like ontologies with the help of semantic technology. Thus, we make a connection between documents (unstructured data) and formal/structured data. In our project, we will implement one such system which provides a state-of-art NLP-based QA system integrated with semantic web technologies. In addition, we will be implementing a “Rapid response system (QA) for the Impact of SDoH and associated risk factors on transmission and outcomes of COVID-19.”