Project Report

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CS 6320: Natural Language Processing

**Submitted by:**

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**Question Answering System**

**Problem Description**

Today the world is full of articles on large variety of topics. We aim to build a question-answering product that can that can understand the information in these articles and answer some simple questions related to those articles.

**Proposed Solution**

We plan to use Natural Language Processing techniques to extract the sematic & syntactic information from these articles and use them to find closest answer to the user’s question.  
We’ll extract NLP features like POS tags, lemmas, synonyms, hypernyms, meronyms, etc for every sentence, and use Solr tool to store & index all this information. We’ll extract the same features from the question and form a Solr search query. This query will fetch the answer from the indexed Solr objects.

**Implementation Details**

**Programming tools:**

* Python - Spyder
* Apache Solr tool
* NLTK library
* Spacy library

**Architectural Diagram:**