Good morning my name is Burin Panchat

It’s a pleasure to have you with us in the presentation today.

Today I’m here to talk about **Elasticsearch**

**Elasticsearch**

**1.What Is Elasticsearch?**

**Elasticsearch** is a [search engine](https://en.wikipedia.org/wiki/Search_engine_(computing)) based on the [Lucene](https://en.wikipedia.org/wiki/Lucene) library. It provides a distributed, [multitenant](https://en.wikipedia.org/wiki/Multitenancy)-capable [full-text search](https://en.wikipedia.org/wiki/Full-text_search) engine with an [HTTP](https://en.wikipedia.org/wiki/HTTP) web interface and schema-free [JSON](https://en.wikipedia.org/wiki/JSON) documents. Elasticsearch is developed in [Java](https://en.wikipedia.org/wiki/Java_(programming_language)). Following an [open-core](https://en.wikipedia.org/wiki/Open-core_model) business model, parts of the software are licensed under various [open-source](https://en.wikipedia.org/wiki/Open_source_software) licenses

**2.Why Elasticsearch?**

Query - Elasticsearch provides a full Query DSL (Domain Specific Language) based on JSON to define queries. Think of the Query DSL as an AST (Abstract Syntax Tree) of queries

Analyze - Elasticsearch aggregations enable you to build complex summaries of your data and gain insight into key metrics, patterns, and trends.

**3.Elasticsearch Advantages**

* **Scalability**. Software development teams favor ElasticSearch because it is a distributed system by nature and can easily scale horizontally, providing the ability to extend resources and balance the loading between the nodes in a cluster
* **Fast performance**. Speaking of performance, ElasticSearch is able to execute complex queries extremely fast. It also caches almost all of the structured queries commonly used as a filter for the result set and executes them only once. For every other request containing a cached filter, it checks the result from the cache
* **Multilingual.** The ICU plugin is used to index and tokenize multilingual content which is an elasticsearch plugin based on the lucene implementation of the unicode text segmentation standard. Based on character ranges, it decides whether to break on a space or character. Therefore, Multilingual are supported in Elasticsearch
* **Document oriented (JSON).** Elasticsearch uses JavaScript Object Notation, or JSON, as the serialization format for documents. JSON serialization is supported by various programming languages, and has become the standard format used by the NoSQL movement. It is simple, concise, and easy to read.
* **Auto-completion and instance search.** The completion suggester provides autocomplete/search-as-you-type functionality. This is a navigational feature to guide users to relevant results as they are typing, improving search precision. It is neither meant for spell correction nor did-you-mean functionality like the term or phrase suggester.
* **Schema free.** Elasticsearch does not require some definitions such as index, type, and field type before the indexing process, and when an object is indexed later with a new property, it will automatically be added to the mapping definitions.

**4.Elasticsearch Installation**

1. Install the latest Java Version Or If already have Java Installed Then check for its version
2. Go to <https://www.elastic.co/downloads/elasticsearch>
3. Click download
4. Unzip file
5. Go to bin folder in Elasticsearch folder
6. Double click on elasticsearch.bat file
7. Wait for Elasticsearch start
8. Open browser and Url: Localhost:9200
9. If you can see this message on the browser that means your Elasticsearch is up and running
10. Use terminal and run commend kibana in bin

We have already looked at the website. Now we are moving on the code.

**Advisor of project**

Asst.Prof.Dr.Putthiporn Thanathamathee

anyone have any questions?