Integration of I 4.0 standards
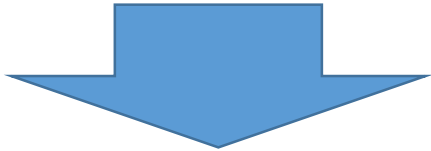
Alina Arunova, Maxim Maltsev, Philipp Matyash, Sattar Rahimbeyli

<u>Tutor:</u> Irlán Grangel
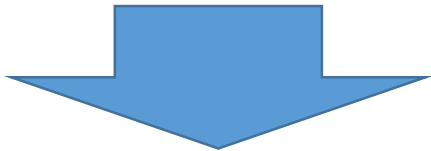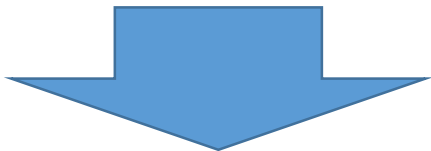
The Problem

Globalization forces large companies to go international

Multinational companies tend to consolidate the standards

Different industrial standards need to be matched

Lots of time wasted onto manual object notation transcription

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The Solution

Universal tool that:

• validates each document against standard schema

• matches each entity of the document to a respectful entity of another document if possible according to ontology

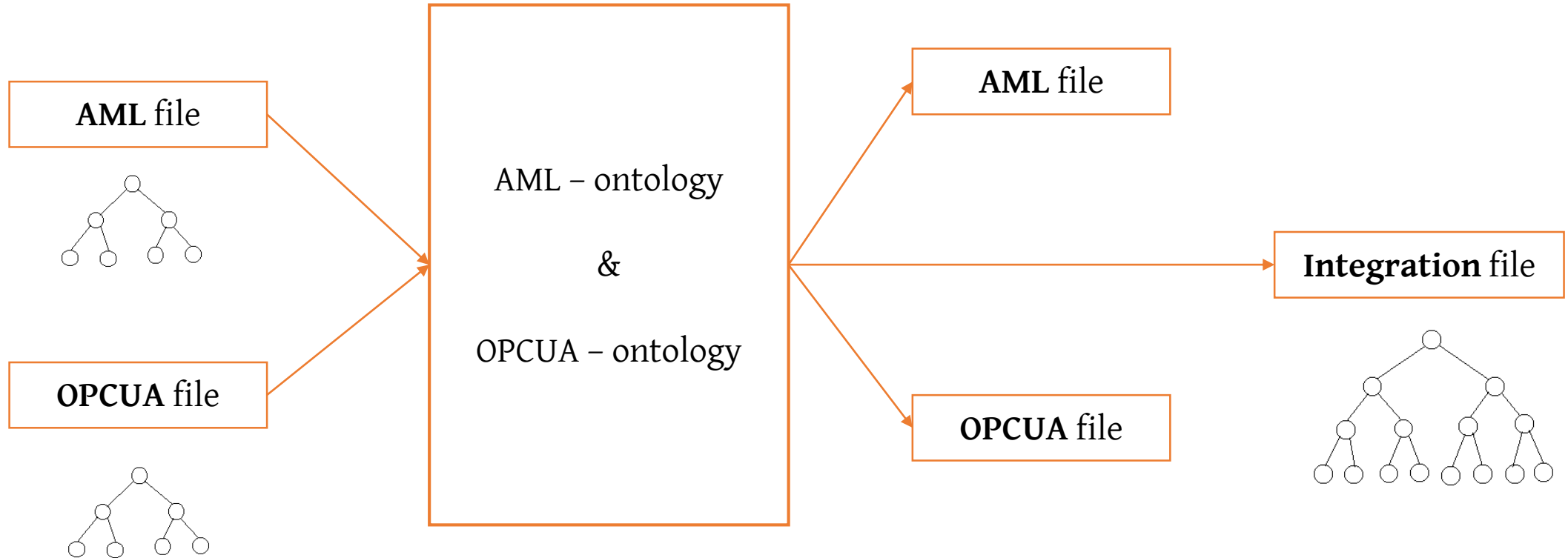• consolidate the knowledge into the new unified standard

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Integration of I 4.0 standards

I 4.0 or Industry 4.0 is a combination of production methods with state-of-the-art information and communication technology. In the world of Industry 4.0, people, machines, equipment, logistics systems and products communicate and cooperate with each other directly.

In short, the goal of our research group is to create a web-based tool that uses RDF(S) vocabularies for integrating instances of such standards as **AutomationML** and **OPCUA** into one piece.

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All files are in XML format

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Integration of I 4.0 standards

Our group will be simultaneously working on the Front end and Back end parts of the project

Front end with the Angular JS framework.

Back end part with the Java.

- User interface with browsing;

- Visualization of the input;

- Visualization of the final result.

- Input validation;

- Integration with the existing model;

- Testing the correctness of the result.

Before starting, a Golden Manual Input will be created in order to have a totally correct result on our hands.

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Conceptual tech stack

Q&A?