Sprint Review and Phase Review Implementation of Process Mining Visualizations for Conformance Checking

Group 2

November 2024

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1 Sprint 1 Review

A Goals for Sprint 1

Our objectives for this sprint were:

- Import the event log into the software.

- Ensure that PM4Py techniques (such as the Dotted Chart and Performance Spectrum) are implemented and visualized correctly.

- Implement the conformance checking function.

- Develop the interface.

B What Works Now?

- A functioning interface.

- Event log upload for both CSV and XES formats:

    - CSV import was custom-implemented.
    - XES import uses a library function.

- Visualization options for:

    - Performance Spectrum
    - Dotted Chart
    - Petri Nets
    - Process Trees

- Conformance checking, which works well on provided examples.

C Goals Not Reached

- Create a more informative and user-friendly interface.

- Test the Performance Spectrum with larger and more complex event logs.
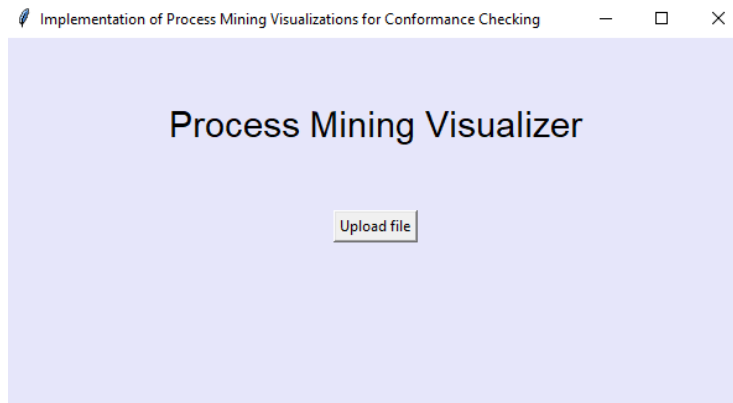
1. Launching the Product

To start the application:

1. Locate and run the `main.py` file.

2. This will launch the user interface of the application.

2. Uploading a File

1. In the main interface, click the **Upload File** button.

2. This will open your file explorer.

3. Navigate to the folder containing your event log file.

4. Supported file formats: `.csv` or `.xes`.

5. Select the desired file and confirm your choice.
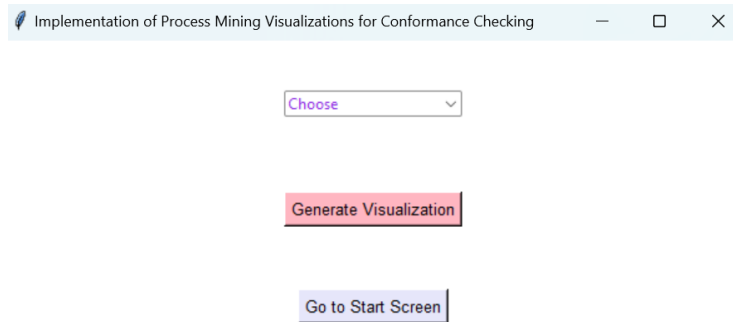
3. Choosing a Visualization

Once you've uploaded a file, you will be taken to a new screen with the following options:

- **Select Visualization**: Choose the type of visualization you want to generate.

- **Back to Start Screen**: Return to the main screen if needed.

4. Generating a Visualization

1. After selecting your desired visualization type, click the **Generate Visualization** button.

2. If the selected visualization is implemented, the application will display the visualization on your screen.

3. If the visualization is not yet implemented, a warning message will appear.
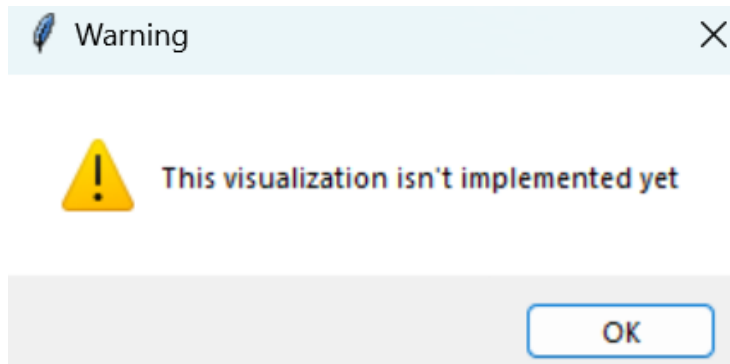
Warning Example

If a visualization is unavailable, you will see a warning message notifying you of this limitation.

2 Phase Review

2.1 Maulik Jain

This phase was both challenging and rewarding for me as a Scrum Master. I worked on writing code for several parts of the project, including the performance spectrum and graphical components like Petri net visualizations and dotted charts. Collaborating with my highly motivated teammates made the process both enjoyable and a great learning experience. I couldn't have accomplished this without the strength of our team. Sprint 2 will undoubtedly bring new challenges, but we're heading into it with positivity and determination.

2.2 Hanna Yashchuk

During this sprint, we encountered significantly more challenges compared to the previous one. However, through teamwork and collaboration, we successfully overcame them. The strong communication between the Software and the Theory Experts played a crucial role in identifying issues and resolving them efficiently. Although there's still room for improvement, considering the challenges we faced, our team's performance and results were truly commendable.

2.3 Huynh Uy Sa

This phase was especially challenging since we began to code our project. I spent a lot of time understanding the performance spectrum and all the theory that was needed for this phase. But I think we did a great job reaching our goals for the first sprint, even if everything is not working perfectly. I also had the chance to work with my team in person. I am constantly learning new things about

Process Mining, and I think this is a great chance to improve my programming skills. I am excited about what's coming next in the second sprint and which challenges we will face. I am confident that our team will keep delivering good work.

2.4 Lingjing Zhou

Starting the programming phase to achieve our goals was a challenging but rewarding experience. From working with PM4Py's existing dotted chart to developing the more complex performance spectrum, each step offered immense opportunities to learn and deepen our understanding of this field. Our team communicated effectively through both online and in-person meetings, helping and supporting each other throughout the process. As we move into Sprint 2, I look forward to the upcoming challenging work.

2.5 Mohammad Ali Agharazi Dormani

This phase was considerably more challenging than the last. I was unfortunately not able to help a lot with this phase because my Python interpreter had an issue and I could only code with the help of others on their devices. Thankfully, my part, namely CHCD, is part of the next sprint. However, my team helped me immensely, providing their devices and patience while also helping me debug my problems with the interpreter.