# Human-Computer Interaction

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Who were the most important suspects?

To find the important suspects in the database. we created a beautiful network graph that is color-coded with red nodes representing places, blue nodes representing suspects, and yellow nodes symbolizing organizations, using this type of graph Emma can easily find who are the important suspects and organizations connected to them.
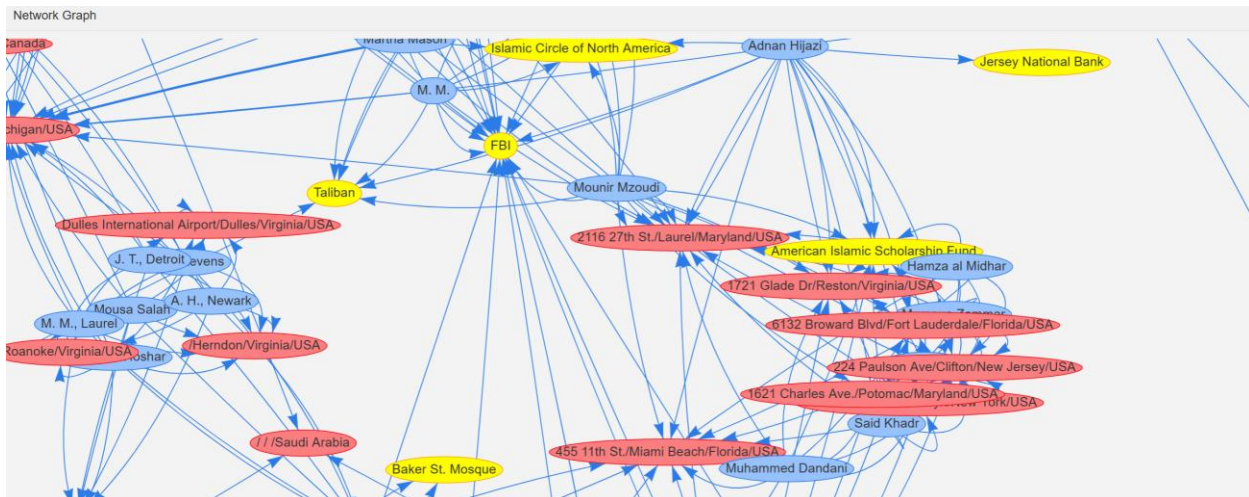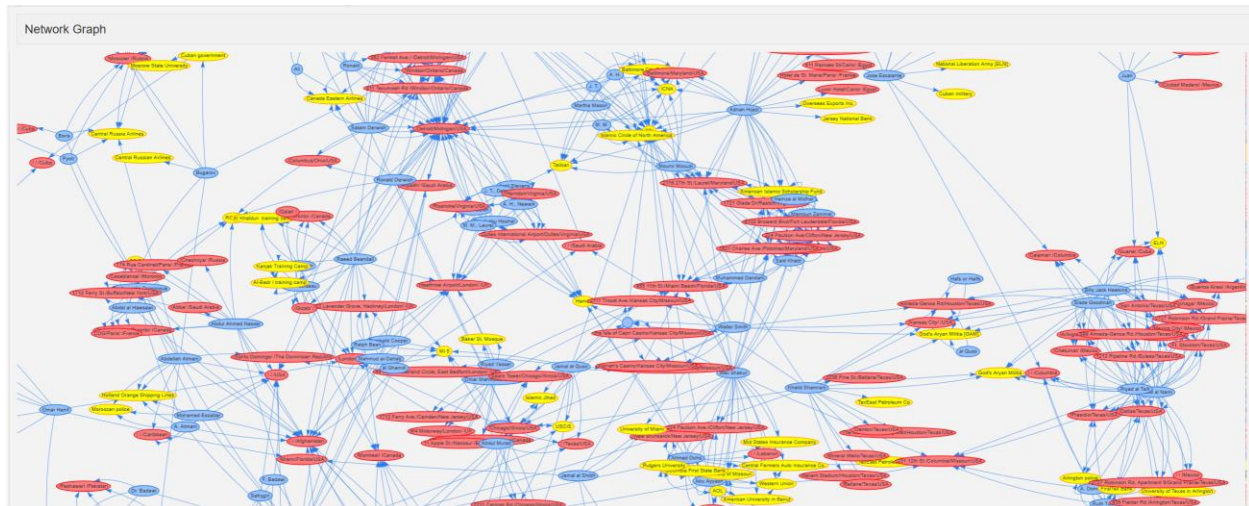
What did they plan to do?

Emma can use our powerful search option to find what they plan to do in each crime, we just need to select Search Field where we are focusing on search and give the Search Text to get the all information related to the crime and everything about it including What they plan to do

Here we can see a example we just gave the criminal name and all the information is displayed

In the same way if I search for an organization, it will show everything about the organization and what crimes they involved in

When and where did their planned event happen?

We used vis. Timeline This is a JavaScript library for creating a timeline visualization, Emma can easily visualize the timelines of the crime using this feature. if we click on any timeline it will show additional information about the crime

here we can see a example that gives the exact time line of every crime and if I click on it it will be highlighted to yellow and gives all the information about the crime
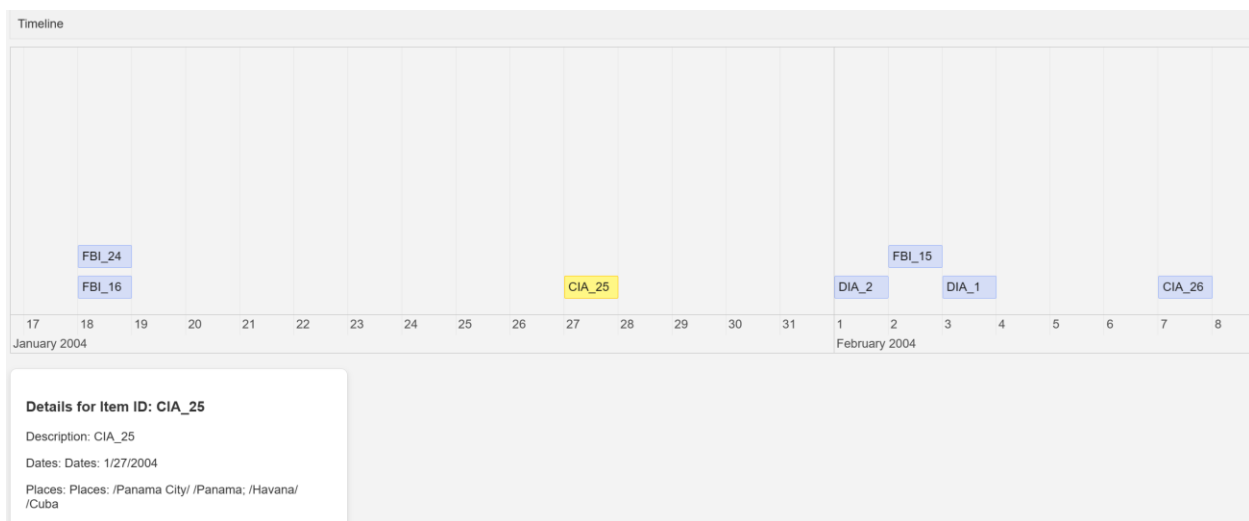
Time line in Zoom out using this we can get a better understanding when most of the crimes happened
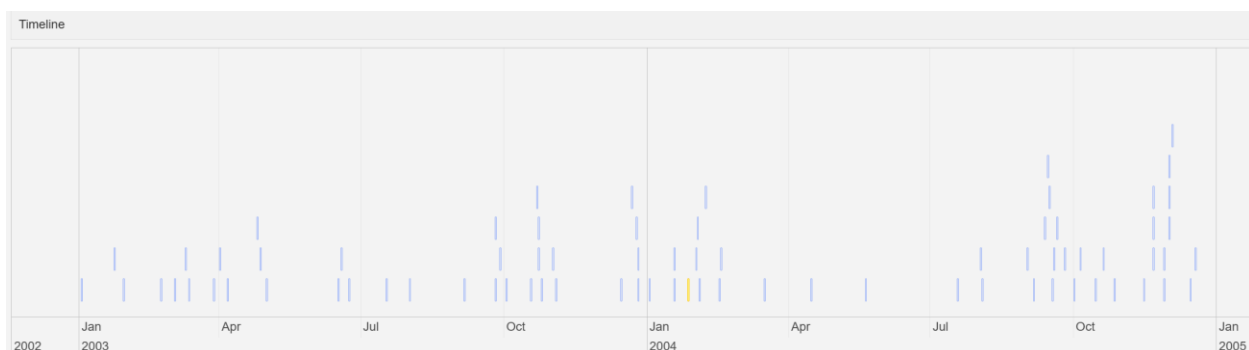
Compute techniques used for data processing:

The data processing techniques used in this process involve reading and parsing text data, filtering and transforming information, and creating visual representations.

Here are some key data processing techniques used:

1. Data Transformation: Converting raw data into a structured format or transforming it for analysis. The `parseReports` function transforms unstructured text data into a structured format (an array of report objects) for further processing and visualization.

2. Filtering and Searching: Selecting specific data based on certain criteria or searching for specific information. The `perform search` function filters the reports based on user input, allowing users to search for specific information within the dataset.

3. Data Visualization: Representing data visually through charts, graphs, or other graphical elements. The functions `displayTable`, `createBarChart`, and `createNetworkGraph` use data visualization techniques to present information in a more understandable and visually appealing way.

4. Timeline Representation: Displaying events or data points on a timeline for chronological understanding. The `create timeline` function creates a timeline of events based on the dates provided in the reports.

5. Network Graph Representation: Showing relationships between entities through nodes and edges. The `createNetworkGraph` function uses a network graph to represent connections between persons, organizations, and places mentioned in the reports.

6. Data Aggregation: Combining and summarizing data to provide higher-level insights. The `countCrimesByCountry` and `countCrimesByCountryAndMonth` functions aggregate data to determine the country or month with the most reported crimes.

3. A description of the design of your GUI.

UI Design

Table

Timeline

Timeline

	NS		CI	
	NS		FE	
FE	FE	FE	NS	NS	NS	FE	FE	CI	FE

| 16 | 21 | 26 | 1 | 6 | 11 | 16 | 21 | 26 | 1 | 6 | 11 | 16 | 21 | 2 |
| October 2004 | | | November 2004 | | | | | | December 2004 | | | | | |

Details for Item ID: CIA_25

Description: CIA_25

Dates: Dates: 1/27/2004

Places: Places: /Panama City/ /Panama; /Havana/ /Cuba

Graph

Network Graph

Country Crime Chart

Crime Month Chart

How did the technique help you with the findings?
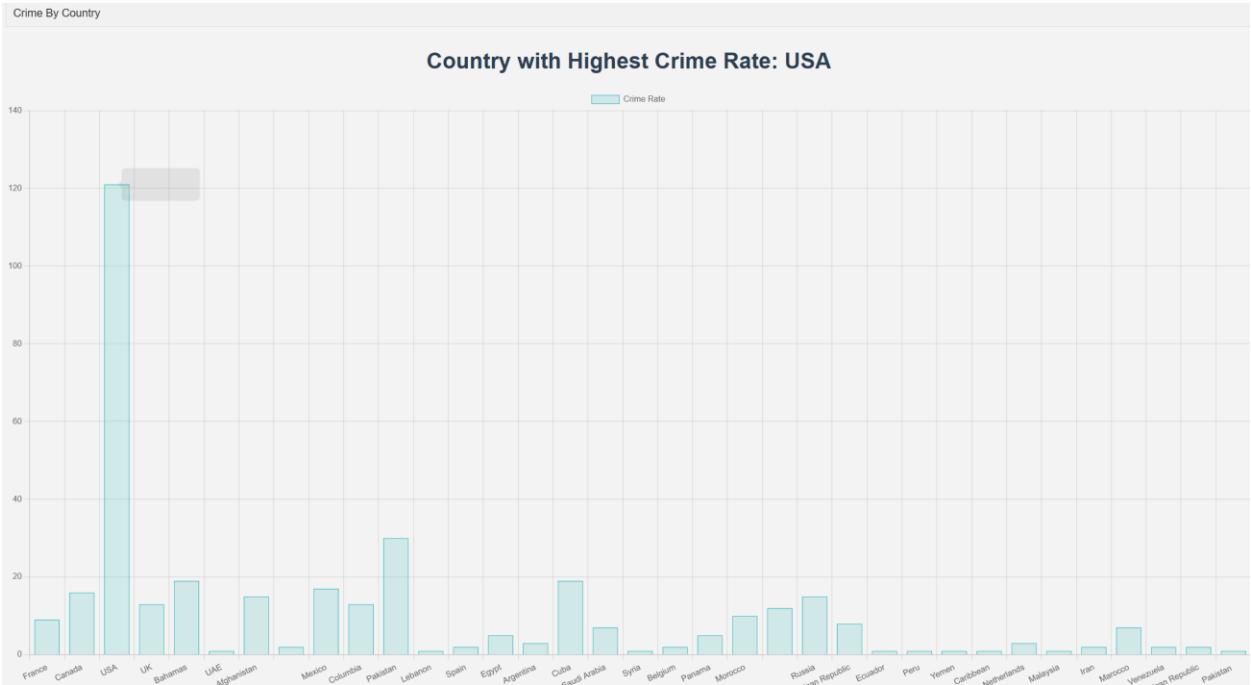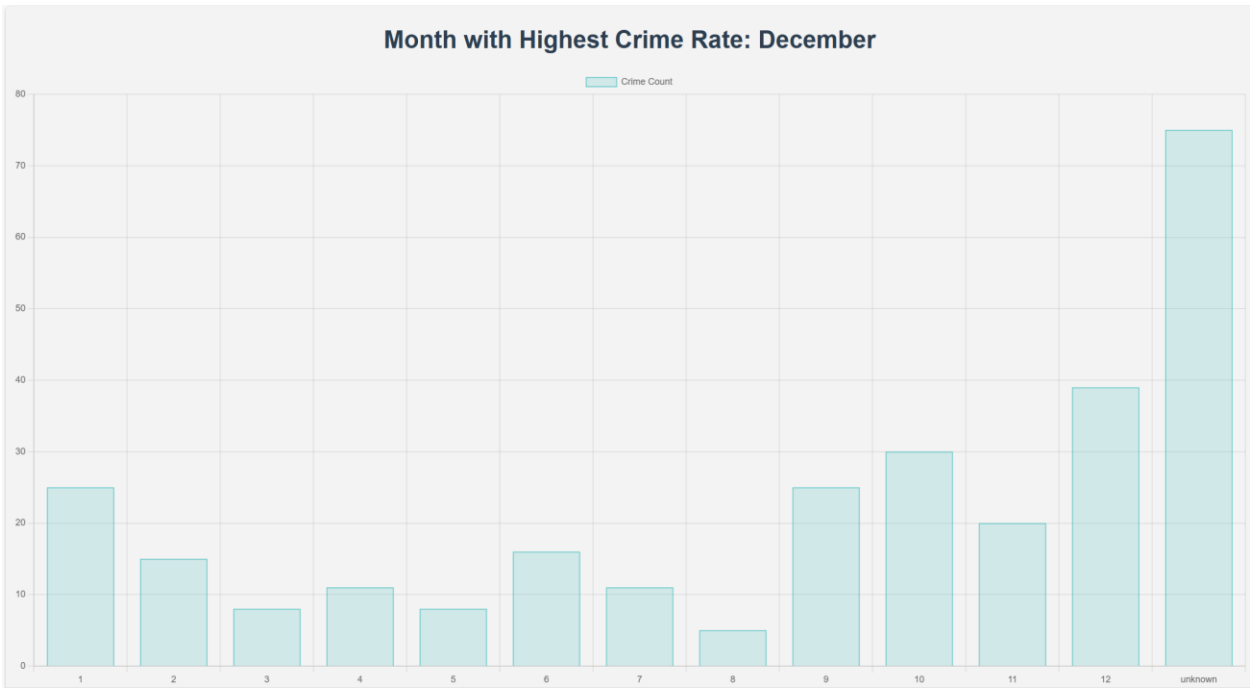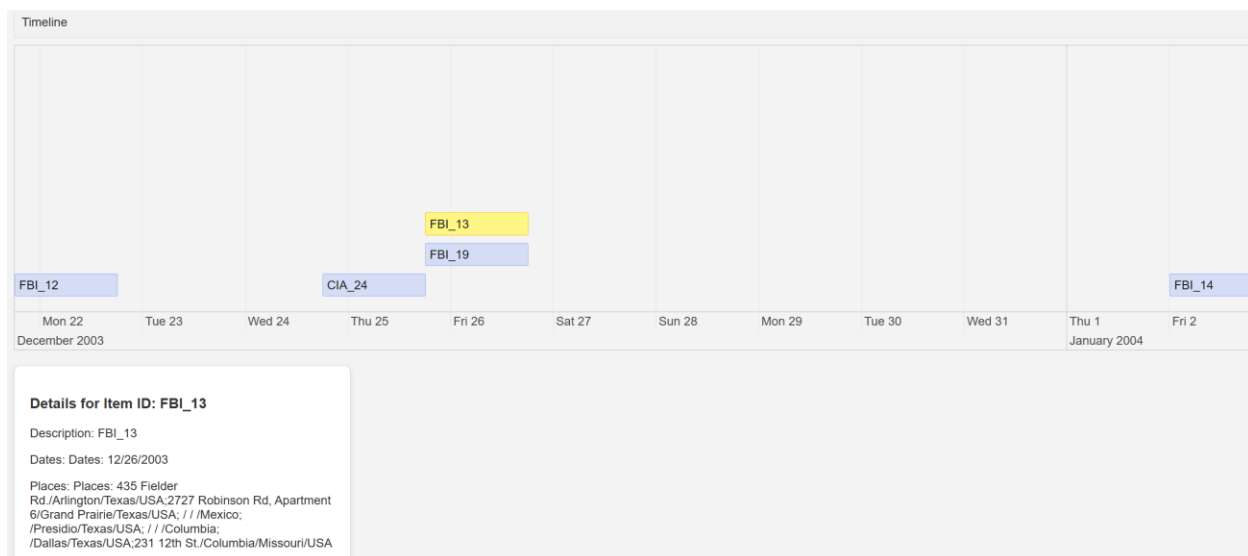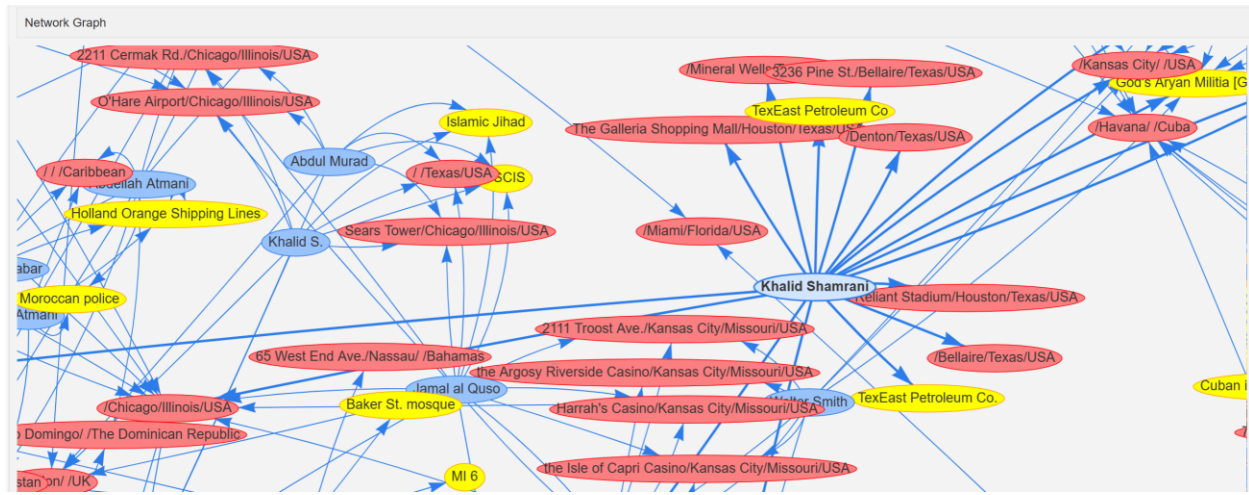
Search Bar To search common names organizations and places and dates to get information quickly

Timeline suggested the exact sequence of crimes, to create the short report on the suspects.

Network Graphs to find suspect and ties between them:

Evidence Showing Adnans connection with lots of organizations, places and suspect.

Instructions about how to run your code and use your technique.

It is very simple to use our website, just open the index.html and click on choose file to upload the report, that's it gives some time to process the report and you can use all the features

References:

vis.DataSet: This is a JavaScript library for managing datasets in a graphical user interface. It is used to create and manage items in the timeline and network graph visualizations.

vis.Timeline: This is a JavaScript library for creating a timeline visualization. It is used to display the crime reports chronologically in a timeline format.

vis.Network: This is a JavaScript library for creating a network graph visualization. It is used to display the relationships between persons, organizations, and places mentioned in the crime reports.

Chart.js: This is a JavaScript library for creating charts. It is used to create the bar charts that show the crime rates by country and month.