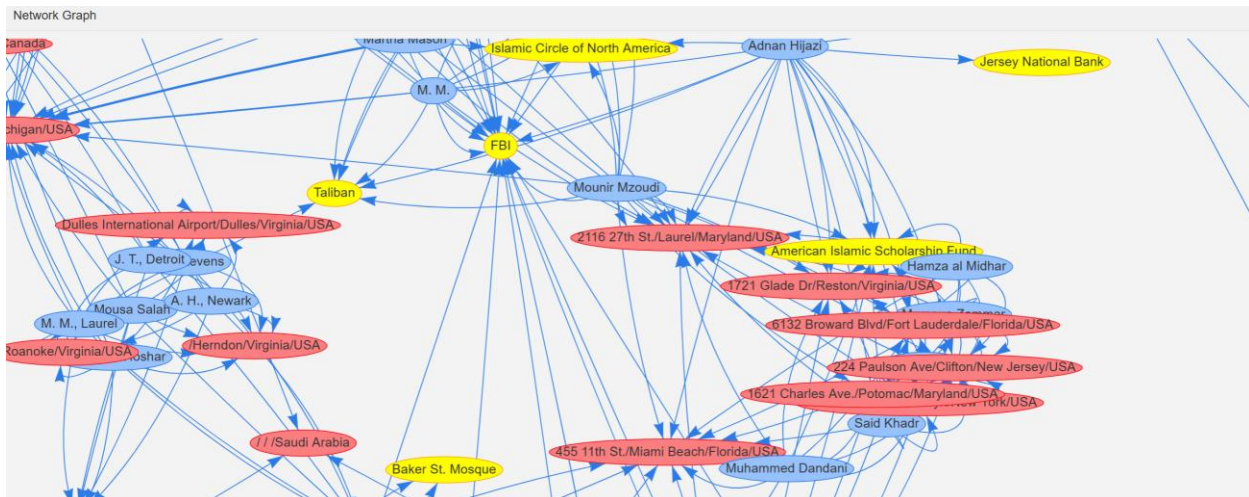
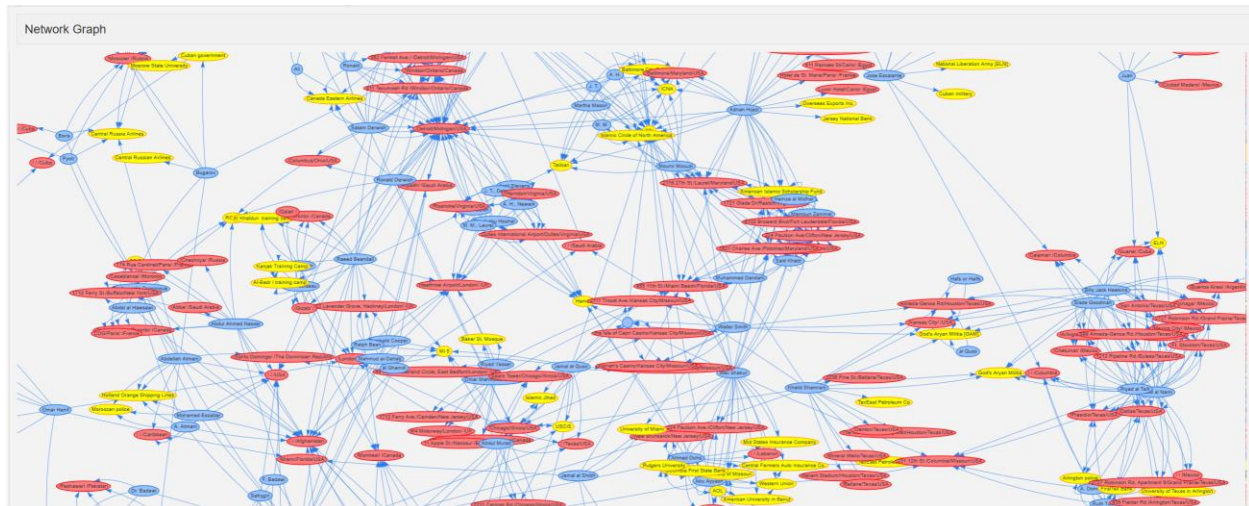


Human-Computer Interaction

Nischal Vooda

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

Search Field:

PERSONS

Search Text:

Abdillah Zinedine

Search

Clear

Table From Upload

ID	REPORTDATE	REFERENCEID	REPORTSOURCE	REPORTDESCRIPTION	PERSONS	DATES	PLA
FBI_1	4/28/2003	CIA_7	Canadian Security Intelligence Service	This report concerns a bulletin issued on 2 April, 2003 by the Surete' de l'Etat in Paris concerning a Moroccan named Abdillah Zinedine, alias	Abdillah Zinedine;Abu Hafs;Mehdi Rafiki;Patrick O'Malley	4/2/2003;4/1/2003;4/6/2003	/Paris; Duro Ave./
CIA_7	4/ /2003		From sources in Paris, France	On 2 April, 2003 the Surete' de l'Etat issued a bulletin concerning a Moroccan named Abdillah Zinedine [alias	Abdillah Zinedine;Abu Hafs;Mehdi Rafiki;Murad;Zakarya Ziyad	4/2/2003; / /2001; / /1997; / /1998; / /1999; / /2000;4/1/2003	73 Ri /Afgh /Mon

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

Search Field: ORGANIZATIONS Search

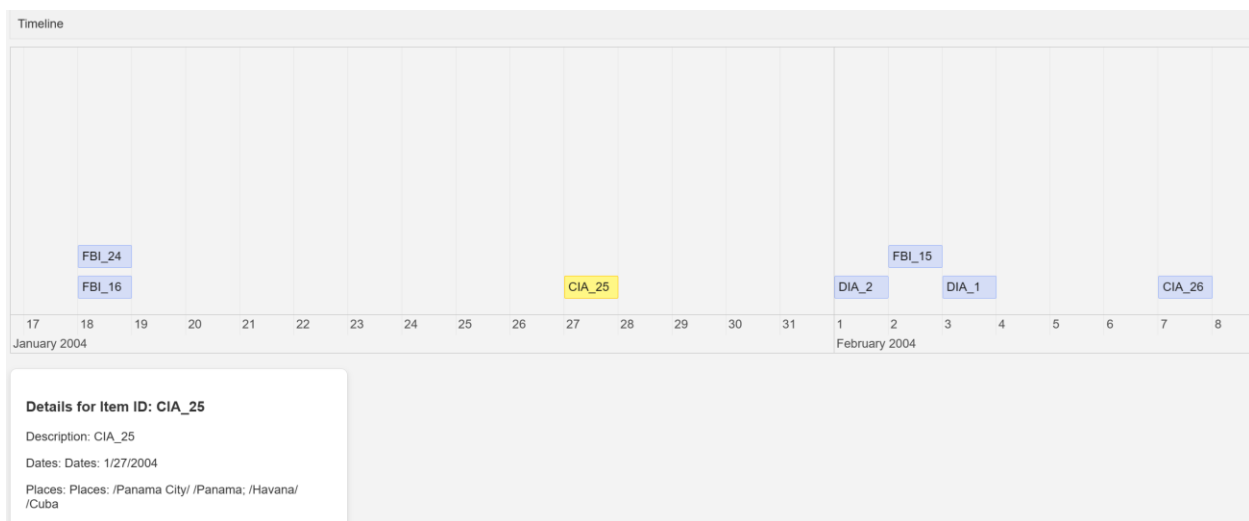
Table From Upload

ID	REPORTDATE	REFERENCEID	REPORTSOURCE	REPORTDESCRIPTION	PERSONS	DATES
FBI_8	11/11/2003			On 1 November, 2003 Mousa Salah, of no fixed address in Herndon, VA., was arrested at Dulles International Airport as he attempted to board a flight to London Heathrow. At the time of his arrest he was using a Jordanian passport in the name Shadi abu Hoshar. Salah has been wanted in connection with Hamas fund-raising and other activities in Northern Virginia. It is believed that Salah entered the USA illegally from Windsor, Canada into Detroit, MI in 2002. Salah was in possession of a Virginia driver's license # T21-23-8820 registered in the name Mousa Salah. Virginia DOT records show that this same license number was issued on 10 August, 2001 to a woman named April Stevens of Roanoke, VA. Ms Stevens is not the subject of further investigations; she teaches kindergarten classes in Roanoke. The address shown on Salah's driver's license does not exist. Several numbers and initials were written on the back of an envelope in possession of Salah at the time of his arrest; they are	Mousa Salah;Shadi abu Hoshar;April Stevens;J. T., Detroit;A. H., Newark;M. M., Laurel	11/1/2003;8/10/2001; / /2002
FBI_10	11/27/2003		St. Louis MO. Field Office	Ahmed Doha and Abu Ayyash are both registered as graduate students at the University of Missouri in Columbia, MO. Both Doha and Ayyash have Saudi student visas issued in July, 2001. Doha was charged with filing a fraudulent insurance claim. On 10 October, 2003 Doha filed a claim with Ayyash's insurance company, Central Farmers Auto Insurance Co., for a back injury he said he suffered on 12 September, 2003 when his car was struck from behind by one driven by Ayyash. Doha's insurance company is the Mid States Insurance Company. Both the Mid States and Central Farmers representatives who subsequently investigated the accident and who handled this claim both stated that Doha and Ayyash said they did not know each other. Doha was paid \$11,000 in settlement of this claim on 1 November, 2003 by Central Farmer's Insurance Company. A check of the records at Mid States and Central Farmers insurance companies reveals that both Doha and Ayyash paid for their auto insurance policies from the same account at the Columbia First State Bank. On a valid search warrant, Doha's apartment at 231 12th St. in Columbia was searched on 20 November, 2003 and it was discovered that Ayyash also lives in this apartment. A Dell laptop computer at this residence was taken by the police. Also taken were CDs containing a 7,000 page version of the Encyclopaedia of Jihad. The computer, when examined, revealed e-mail messages to	Ahmed Doha;Abu Ayyash;Wali Shakur	7/ /2001;10/10/2003;9/12/2003;11/1/2003

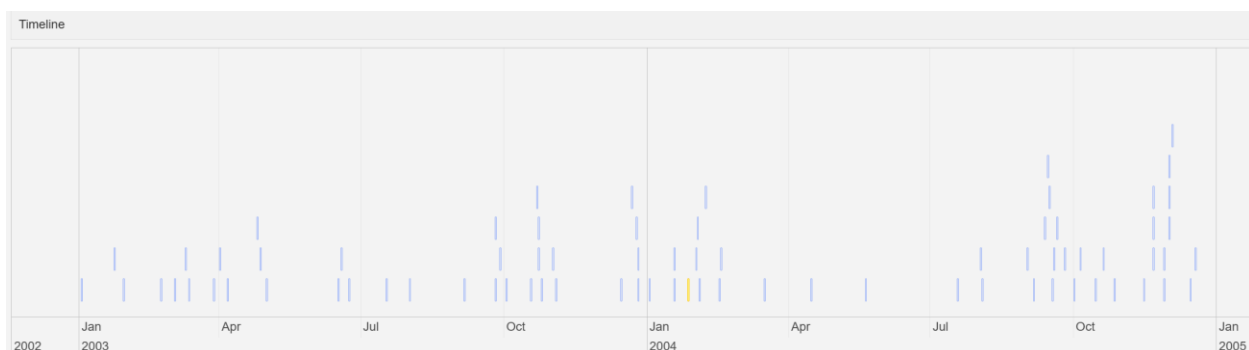
When and where did their planned event happen?

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

Choose Filereport.txt

Search Field: IDSearch Text:SearchClear

Table From Upload

Timeline

Network Graph

Crime By Country

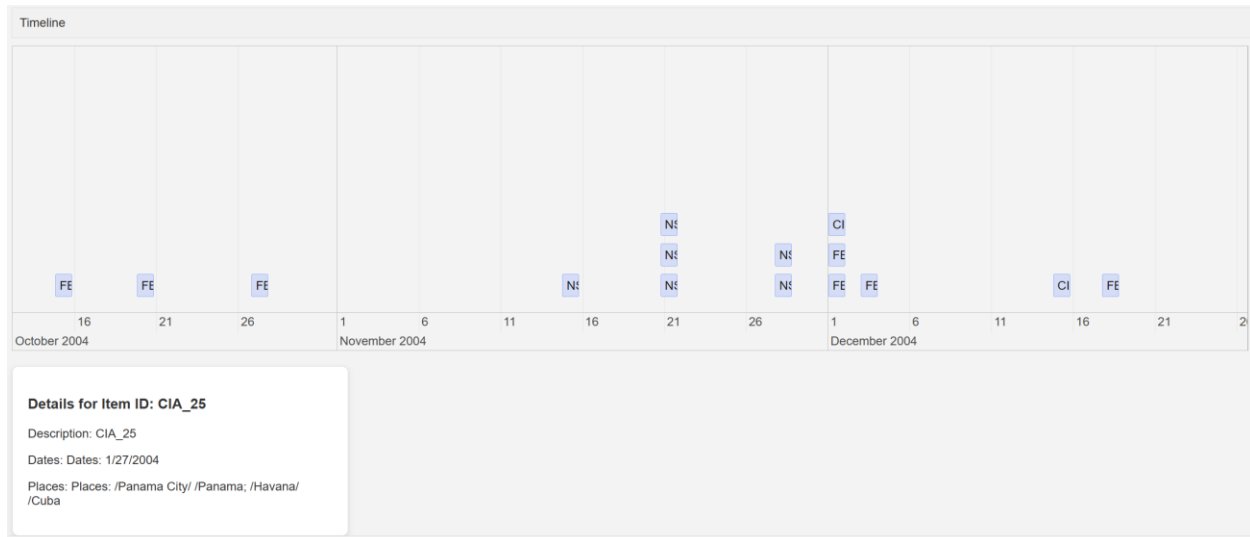
Crime By Month

Table

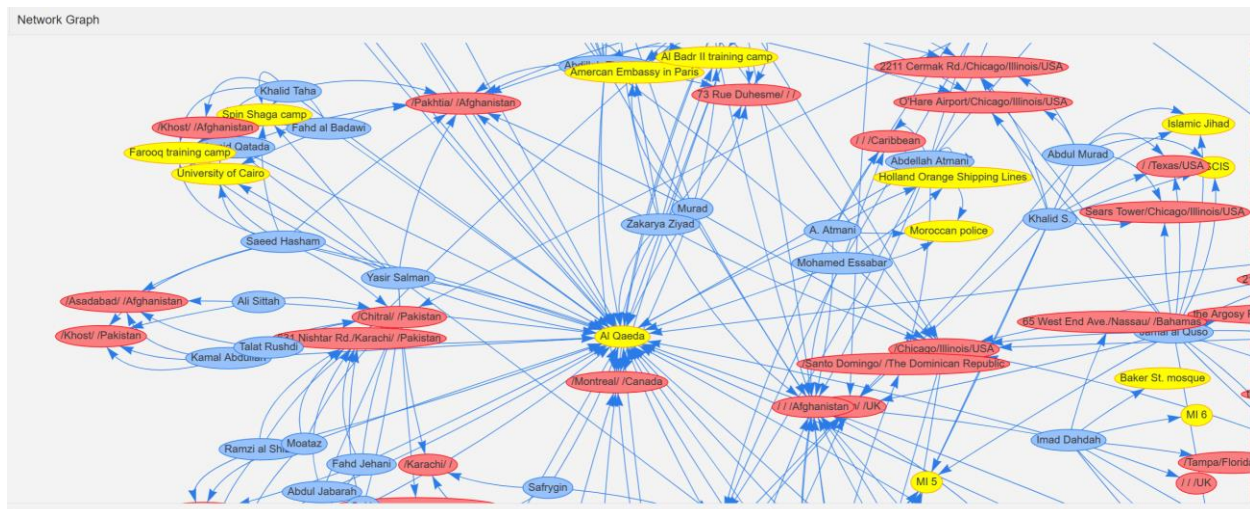
Search Field: IDSearch Text:SearchClear

ID	REPORTDATE	REFERENCEID	REPORTSOURCE	REPORTDESCRIPTION	PERSONS	DATES
FBI_1	4/28/2003	CIA_7	Canadian Security Intelligence Service	This report concerns a bulletin issued on 2 April, 2003 by the Surete' de l'Etat in Paris concerning a Moroccan named Abdilllah Zinedine, alias	Abdilllah Zinedine;Abu Hafs;Mehdi Rafiki;Patrick O'Malley	4/2/2003;4/1/2003;4/6/2003
FBI_2	5/12/2003		MI-5,UK	Riyad Yasser, a UK citizen, was arrested on 1 May, 2003 following an accident on the M4 Motonway near the Heston Service Area outside of London. Yasser has been an air traffic controller at Heathrow Airport for the past six years. Two kilos of Semtex were found in the trunk of his car. A videocassette of a sermon given by Omar Mahmoud Othman, formerly a Salafi jihad preacher at the Baker St. Mosque in London, was found in Yasser's apartment at # 44, Northumberland Circle, East Bedfont, London. Also found in Yasser's apartment was a note containing several addresses in Canada, the USA, and in Nassau in the Bahamas. The addresses are	Riyad Yasser;Omar Mahmoud Othman	5/1/2003
FBI_3	7/3/2003	CIA_13	Los Angeles Field Office	In response to the CIA report [29 June, 2003] regarding Abu Somad, 235 Buckthorn St, Inglewood CA, and Yazid Bafaba, 773 Flaxton St., Culver City, CA., investigators visited these two persons at their residences. Both Somad and Bafaba said they had never heard of persons named Riduan Sungkar or Omar Evertts. Each of Somad and Bafaba was asked if they knew the other and they replied that they did not. However, it was later established that both Somad and Bafaba appeared together in a surveillance photo taken at the CalNational Bank in Culver City. Records of this bank indicated that Somad and Bafaba hold a joint account at this bank and that they have received several deposits of \$1000 to this account from BMI, a private Islamic investment company in Newark, NJ.	Abu Somad;Yazid Bafaba;Riduan Sungkar;Omar Evertts	
FBI_4	10/21/2003		Chicago Field Office	A man using an Illinois driver's license in the name Abu Hafs, address 2211 Cermak Rd., in Chicago, rented a car at the Drexel Car Rental Agency in Chicago on 27 September, 2003. This car was never returned to the Drexel agency. It was found abandoned in a parking lot at O'Hare Airport on 2 October, 2003. On 27 April a roundtrip airline ticket to Hobby Airport in Houston, Texas was issued by Central States Airline at O'Hare Airport to a man who gave his name as Mehdi Rafiki. Rafiki paid for this ticket in cash and used as identification a French passport in the name Mehdi Rafiki	Abu Hafs;Mehdi Rafiki	9/27/2003;10/2/2003;4/27/2003

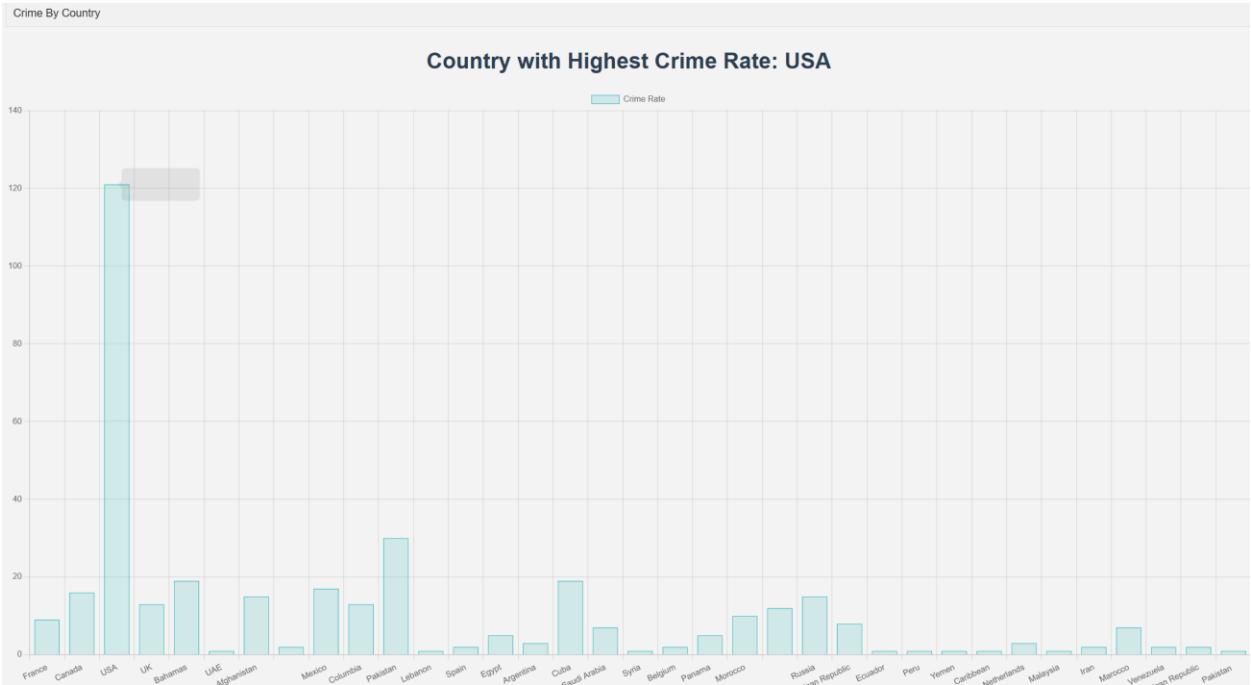
Timeline



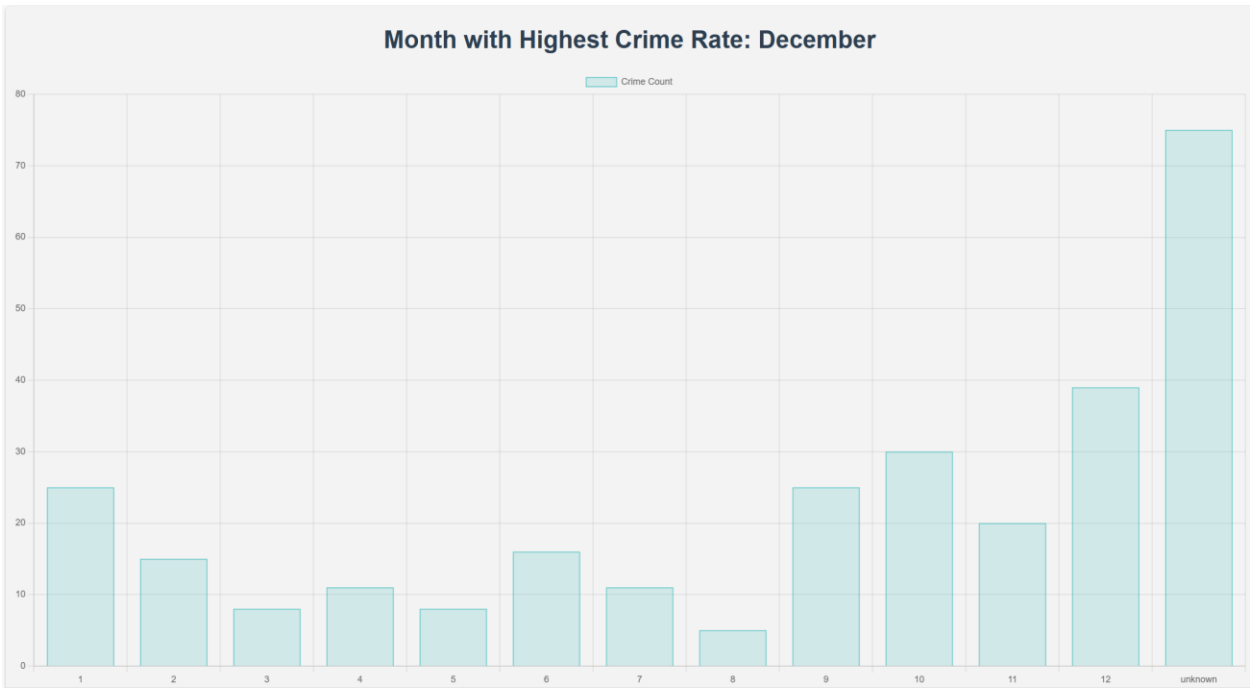
Graph



Country Crime Chart

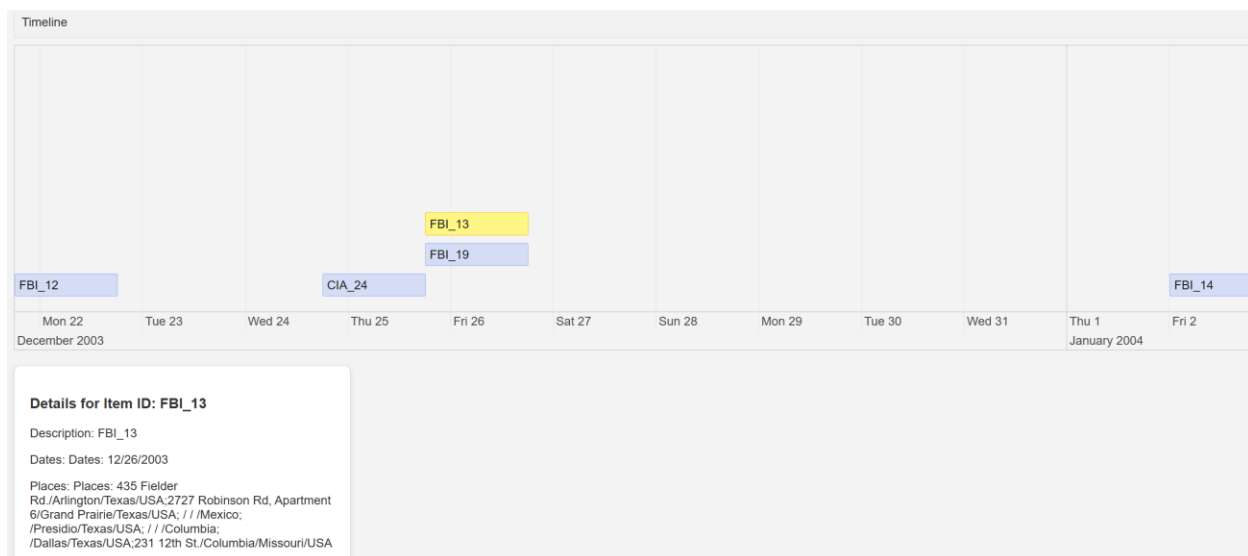


Crime Month Chart

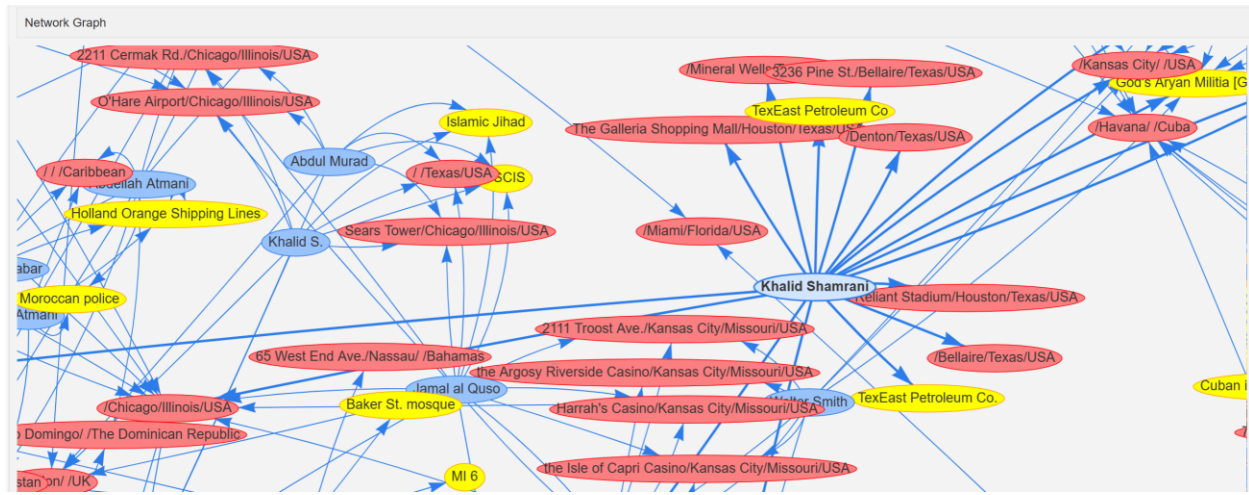


Search Bar To search common names organizations and places and dates to get information quickly

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.