**Advanced WEB Technologies – Homework 1  
Group number 8:** Elad Krauz, Uri Ziv, Lee Potashnik, Ofir Berkovitsh, Tal Turgeman  
Link to GitHub repository: [Here](https://github.com/Eladkrauz/AdvancesWebTechnologies/tree/main/HW1-WEB)

**Question 1:**The system engineer is Ofir Berkovitsh.  
The tasks were given to each team member:

|  |  |
| --- | --- |
| Elad Krauz | Implementing the HTML part Implementing the Tailwind CSS part Researching about cryptocurrencies |
| Uri Ziv | Designing the app layout ideas Writing functional requirements |
| Lee Potashnik | Designing the app layout ideas Writing non-functional requirements Filtering the NFR into classes |
| Ofir Berkovitsh | Assigning tasks to each team member Designing the app logic ideas |
| Tal Turgeman | Implementing the JavaScript part Researching about cryptocurrencies |

There was indeed coordination and correlation between the work of the team members. Elad designed the part related to HTML and CSS, while Tal designed the JavaScript part. Their work was based on plans that Ofir and Uri made (in the context of the layout of the application), on requirements that Uri and Lee wrote and on research that Elad and Tal did on cryptographic currencies.

**Question 2:  
Functional Requirements:  
Real-Time News Aggregation:** The system will fetch and display latest news articles related to cryptocurrencies.

**Currency-Specific Filtering:** The system will allow users to filter news based on at least five major cryptocurrencies.

**Market Trend Filtering:** The application will provide an option to filter news based on predefined market trends (for example: regulatory news, market analysis, and major events).

**User Notifications:** The application will support push notifications (via email) for major news updates related to cryptocurrencies. Users will be able to subscribe to notifications for specific currencies or market trends.

**User Authentication and Personalization:** The application will allow users to create accounts and log in using email and password. Authenticated users will be able to save their filter preferences, which will be applied automatically upon login.

**Non-Functional Requirements:  
Performance:  
- Scalability:** The system should handle up to 100 concurrent users without significant performance degradation. **- Response Time:** The application should fetch and display news articles within 3 seconds of a request.

**Usability:  
User Interface:** The interface should be simple and intuitive, ensuring users can easily navigate and filter news articles without prior training.

**Reliability:  
- Availability:** The application should have an uptime of 95%, ensuring it is available to users most of the time. **- Error Handling:** The application should handle errors, providing clear error messages to users.

**Security:  
- Data Privacy:** User data, including preferences and personal information, must be stored securely and protected from unauthorized access..

**Maintainability:  
- Code Quality:** The codebase should follow standard coding practices, including proper documentation and modularization. **- Update Management:** The system should allow for updates without requiring significant downtime.

**Question 3:**The topic we chose for our project is: Real-Time Cryptocurrency News Aggregator.  
We are going to develop a web application that aggregates news from various sources online related to cryptocurrencies. We will implement real-time updates for the news and allow users to filter the news based on specific currencies or general market trends.