

Internet Technologies – Lab #7: Frontend-backend communication: **Assignment A – 10 points**

Implement a server-side application with a front-end component fulfilling the requirements below. You can use pure Node.js or Express.js (recommended) on the backend. Use your own creativity to complete the "missing" elements of the requirements. Implementations of all requirements can be presented within a single application. Ensure at least basic usability and readability.

- a) An application serving a form (static HTML+CSS+JS) containing at least 3 fields of 2 (or more) different types.

The data from the form should be validated on the frontend, if it passes validation, it should be sent asynchronously to the backend (if not - we display an appropriate message).

On the backend, you should perform validation on this data, then some operation and send the result (or information about unsuccessful validation) back to the frontend.

The frontend should properly present the result of the operation/validation to the user.

At least one of the fields should have validation rules that go beyond checking for presence (e.g. using regexp or another validation function).

The form and validation rules should make sense. (5 points)

- b) An application that periodically queries the backend asynchronously for new data and updates the page displayed to the user to present them with new data.

The backend should serve new data with each query - it can be generated randomly, read from a file or database (5 points).