USER TEST

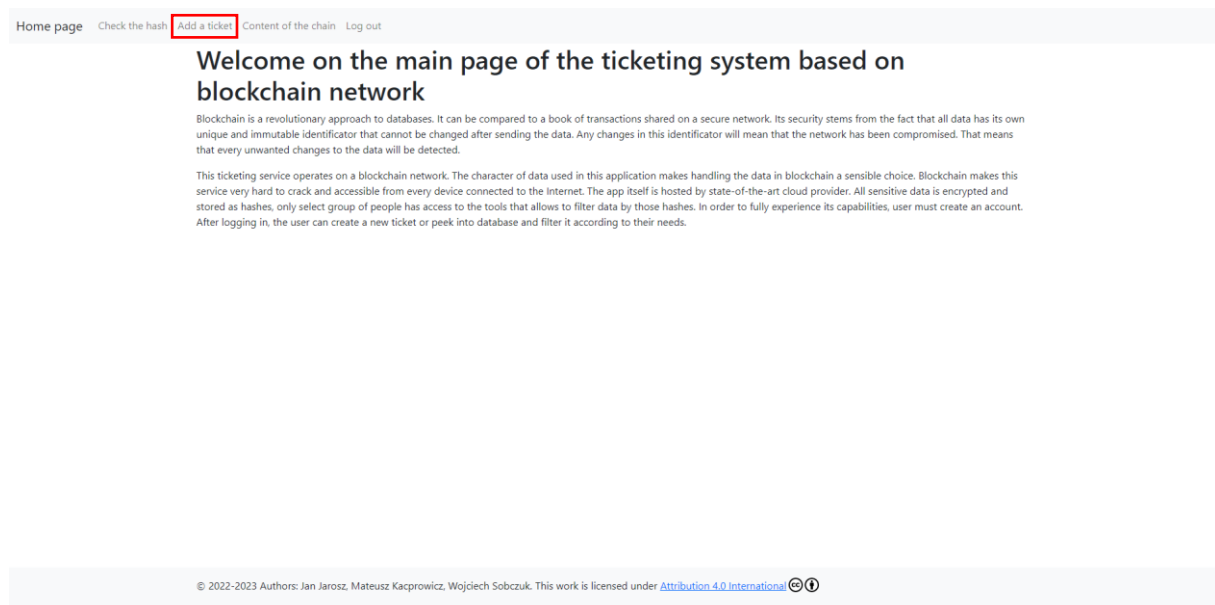Number of requirement which has been tested: 9

Requirement title: Blockchain Filling

Requirement description: Application must have the option to add new tickets to the blockchain
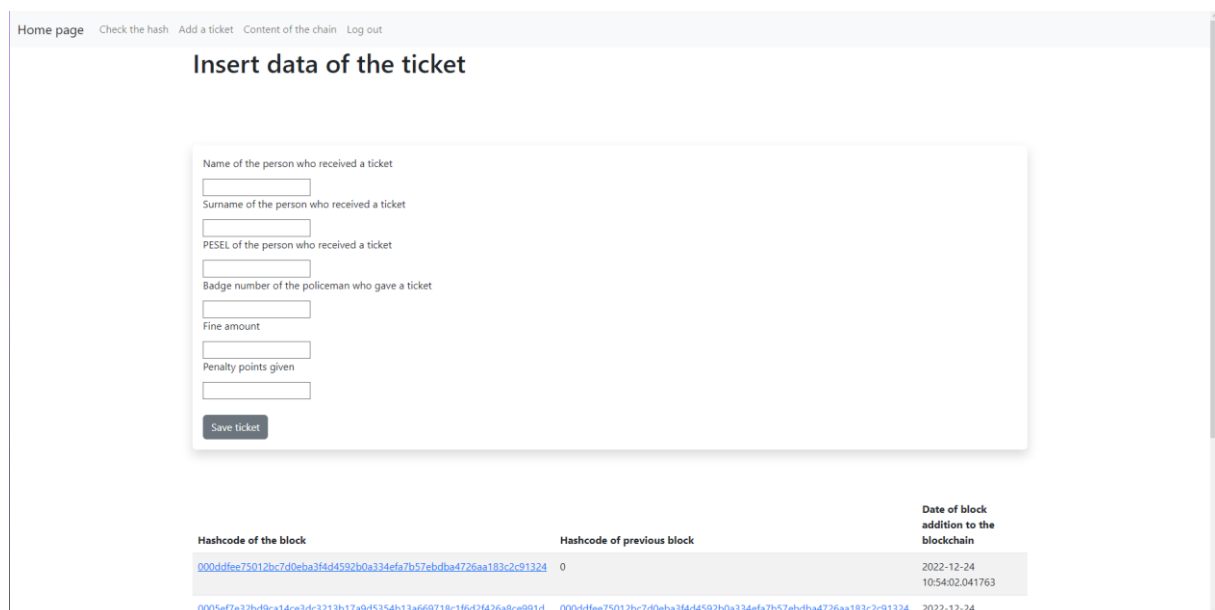
Test scenario: User will add the ticket to the blockchain through the ticket addition module.

Test process and results:

1. To add the ticket user should choose from navigation bar "Add a ticket" option.

Home page   Check the hash   Add a ticket   Content of the chain   Log out

Welcome on the main page of the ticketing system based on blockchain network

Blockchain is a revolutionary approach to databases. It can be compared to a book of transactions shared on a secure network. Its security stems from the fact that all data has its own unique and immutable identificator that cannot be changed after sending the data. Any changes in this identificator will mean that the network has been compromised. That means that every unwanted changes to the data will be detected.

This ticketing service operates on a blockchain network. The character of data used in this application makes handling the data in blockchain a sensible choice. Blockchain makes this service very hard to crack and accessible from every device connected to the Internet. The app itself is hosted by state-of-the-art cloud provider. All sensitive data is encrypted and stored as hashes, only select group of people has access to the tools that allows to filter data by those hashes. In order to fully experience its capabilities, user must create an account. After logging in, the user can create a new ticket or peek into database and filter it according to their needs.

2. View of the module:

Home page   Check the hash   Add a ticket   Content of the chain   Log out

Insert data of the ticket

Name of the person who received a ticket

Surname of the person who received a ticket

PESEL of the person who received a ticket

Badge number of the policeman who gave a ticket

Fine amount

Penalty points given

Save ticket

Hashcode of the block	Hashcode of previous block	Date of block addition to the blockchain
000ddfee75012bc7d0eba3f4d4592b0a334efa7b57ebdba4726aa183c2c91324	0	2022-12-24 10:54:02.041763
0005ef7e32bd9ca14ce3dc3213b17a9d5354b13a669718c1f6d2f426a8ce991d	000ddfee75012bc7d0eba3f4d4592b0a334efa7b57ebdba4726aa183c2c91324	2022-12-24

Module contains a form which must be filled in to add a ticket and also a list of already existing blocks in the blokchain.

3. Filled form:

In boxes to insert PESEL, badge number, fine amount and penalty points it is properly restricted that only numbers can be filled.

4. After clicking the "Save ticket" button, an information that the ticket has been added appears.

5. As it can be seen on above picture there is already a list of existing blocks in the blockchain under the form. New ticket appears on the bottom of the page.

6. When one of the hashcodes is clicked, application shows details of the block (ticket)