# OST documentation

# Table of Content

This project has received funding from the European Union's 7th Framework Programme for Research, Technological Development and Demonstration under Grant Agreement (GA) N° #607798

# 1. Component diagram

Backend, frontend and database can be launched by one docker compose. Backend can connect with Testbed (Kafka) and with Keycloak (system to authorization).

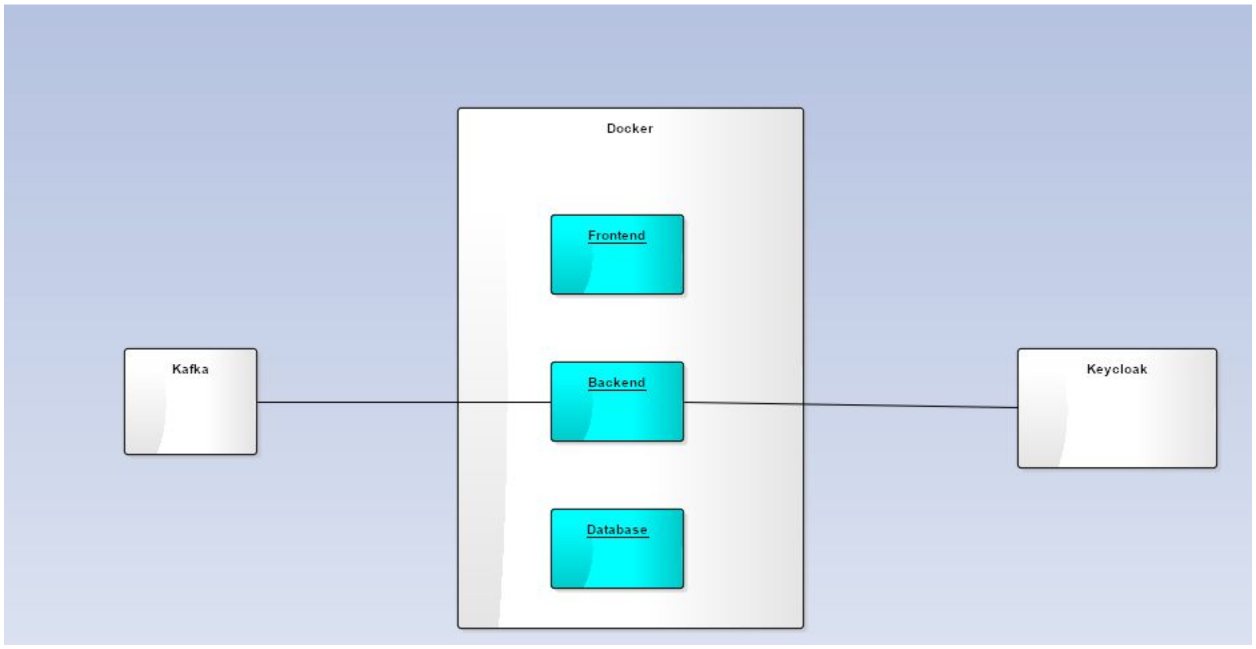

Figure 1. Component diagram of OST.

# 2. User Manual

User can login to server as admin or observer. Admin can manage trials, session, stages, roles, add question to roles and stages, add and edit users and control active session. Observer can answer on question and comment it.

## Admin

Goal of admin is creating working session for observers. This process contains three stages: creating trial with questions, creating roles and assign them to question set and preparing

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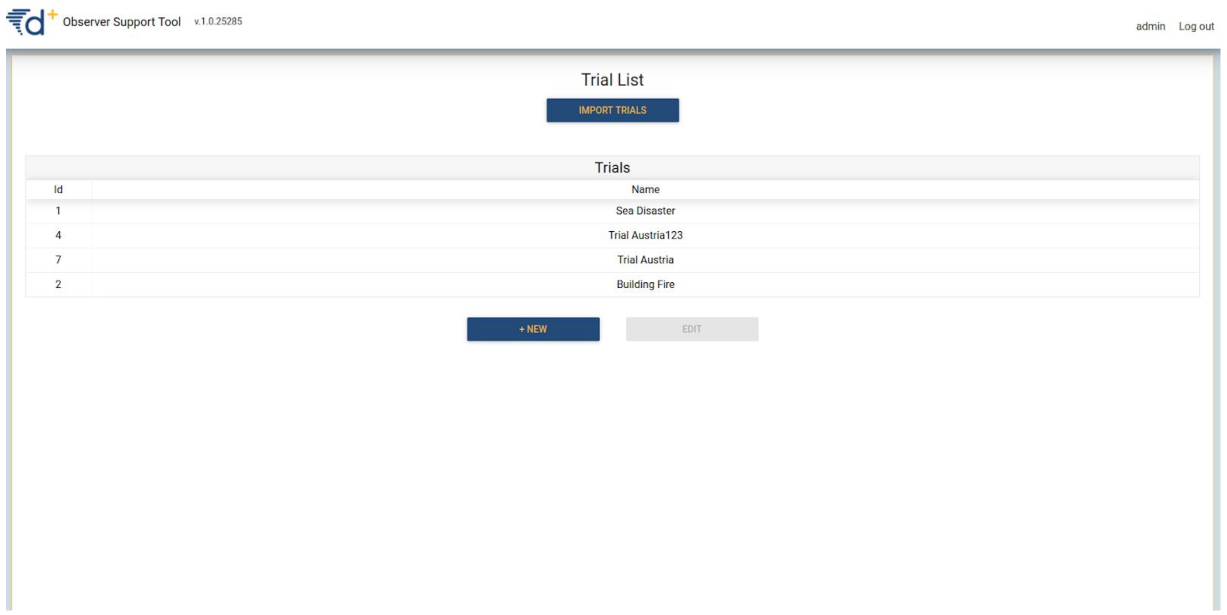
session with users. To create questions admin should create trial, stages in trial, question sets in stages and question in question sets. Description can be find in subsection named ,,Creating trial with questions”. Second part is creating roles and assign them to question set (which already are assign to stage). It means, that question, which are available for observer, depends on stage and on role of logged observer. Last step is creating session with observers. Observers in other sessions can have other roles, so assignment user to role in session. Admin needn’t create new users, if observers have their account in system. Description of this step can be find in subsection ,,Managing users and sessions”.

## Creating trial with questions

### Trial list

If we choose “TRIALS” from launch window we will be redirected to Trial List.
There is a list of trials, which can be managed also we can upload after choosing “Import trial” button.



Trials

| Id | Name |
|---|---|
| 1 | Sea Disaster |
| 4 | Trial Austria123 |
| 7 | Trial Austria |
| 2 | Building Fire |

Figure 2. Trial list view

### Trial details

After choosing trial from trial list and click edit or after double clicking left mouse button on trial from trial list, system redirects to trial details. There are basic details about trial and data about sessions, stages and roles in trial.
Also trial can be edited and removed there.

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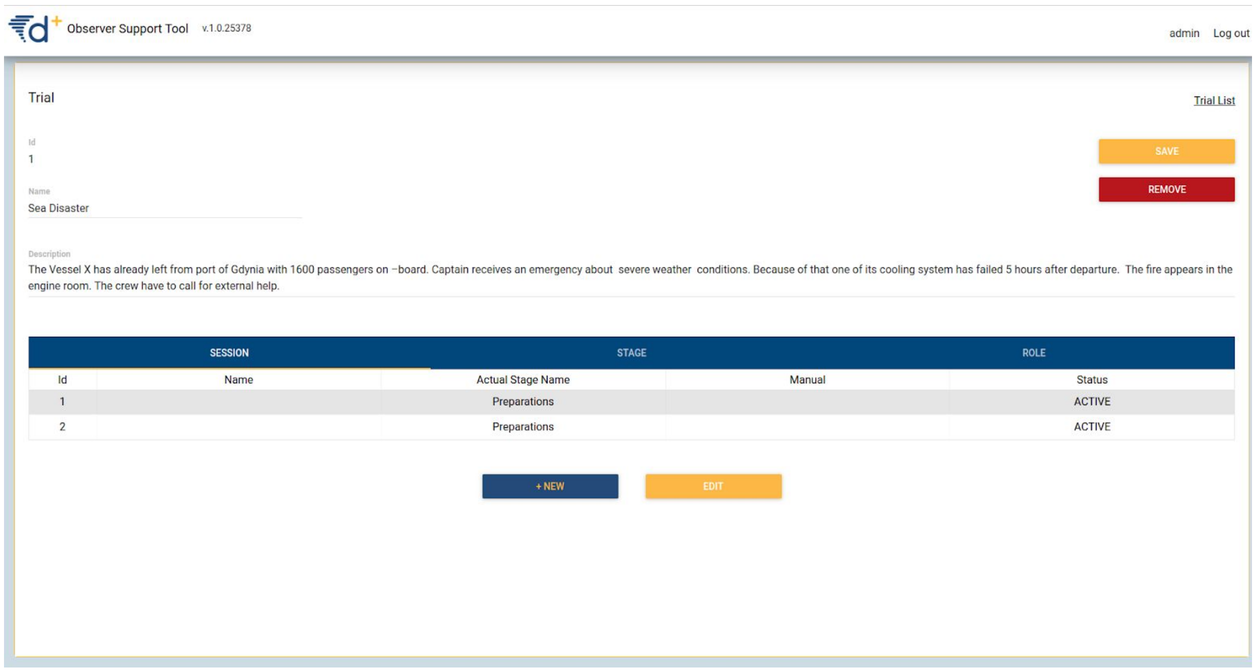


Trial

Id
1

Name
Sea Disaster

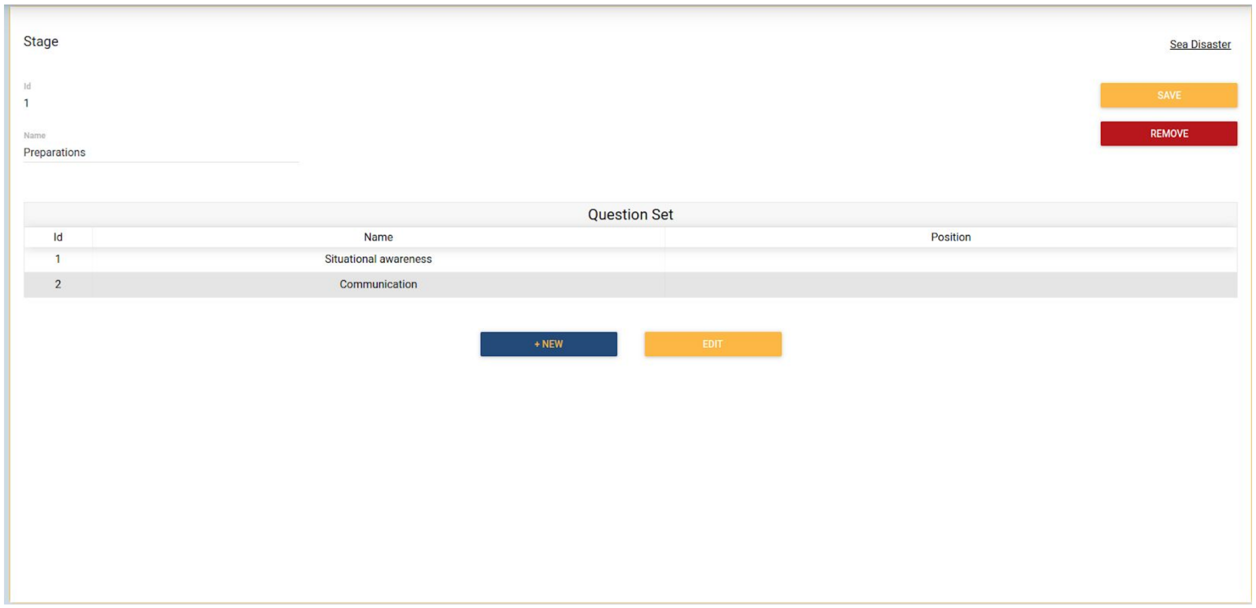
Description
The Vessel X has already left from port of Gdynia with 1600 passengers on –board. Captain receives an emergency about severe weather conditions. Because of that one of its cooling system has failed 5 hours after departure. The fire appears in the engine room. The crew have to call for external help.

| Id | Name | Actual Stage Name | Manual | Status |
|---|---|---|---|---|
| 1 | | Preparations | | ACTIVE |
| 2 | | Preparations | | ACTIVE |

Figure 3. Trial detail view

## Stage details

After choosing stage from trial details and click edit or after double clicking left mouse button on stage from trial details, system redirects to stage details. There are basic details about stage, which can be edited. Also stage can be deleted by admin. Question set list of chosen stage is below basic stage details. You can redirect to trial by clicking trial name above save button.



Stage

Id
1

Name
Preparations

Question Set

| Id | Name | Position |
|---|---|---|
| 1 | Situational awareness | |
| 2 | Communication | |

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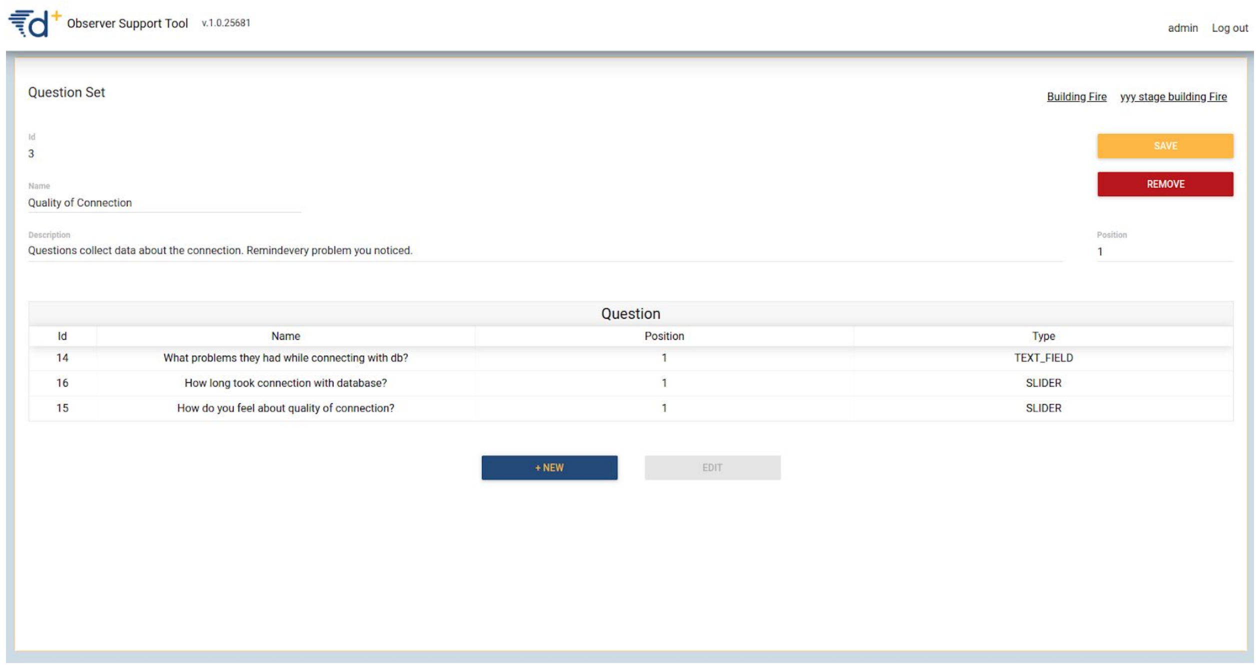
Figure 4. Stage detail view

### Question set details

In question set details windows admin can change name or description also list of questions of this question set is shown. User can redirect to the chosen question by double clicking on question or clicking question and edit. You can redirect to trial or stage by clicking trial name or stage name above save button.


Observer Support Tool v.1.0.25681
admin Log out
Building Fire yyy stage building Fire
SAVE
REMOVE
+ NEW
EDIT

Question Set

Id
3

Name
Quality of Connection

Description
Questions collect data about the connection. Remindevery problem you noticed.

Position
1

Question

| Id | Name | Position | Type |
|---|---|---|---|
| 14 | What problems they had while connecting with db? | 1 | TEXT_FIELD |
| 16 | How long took connection with database? | 1 | SLIDER |
| 15 | How do you feel about quality of connection? | 1 | SLIDER |

Figure 5. Question set detail view

### Question details

In question details admin can modify question, description or type of answer. Also admin can add new options of choice, show them or remove. In question details parameters like commented and required can be set. You can redirect to trial, stage or question set by clicking trial name, stage name or question set name  above save button.
Question option can be add after saving question.

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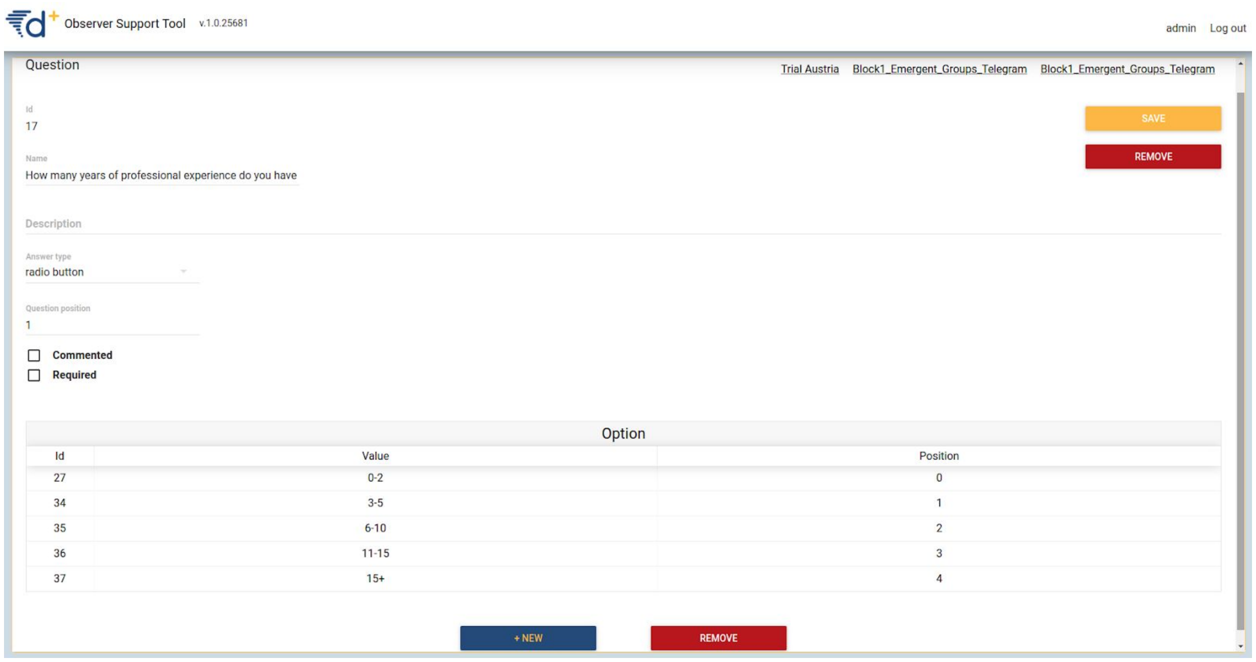

Question

Id
17

Name
How many years of professional experience do you have

Description

Answer type
radio button

Question position
1

☐ Commented
☐ Required

Option

| Id | Value | Position |
|---|---|---|
| 27 | 0-2 | 0 |
| 34 | 3-5 | 1 |
| 35 | 6-10 | 2 |
| 36 | 11-15 | 3 |
| 37 | 15+ | 4 |

Figure 6. Question detail view

## Creating roles and assign it to question set

### Role details

After choosing role from trial details and click edit or after double clicking left mouse button on role from trial details, system redirects to role details. There are basic details about role, which can be edited. Also in  role details we can manage of user assignment to role and question set, which should be show, when right stage is chosen. You can redirect to trial by clicking trial name above save button.

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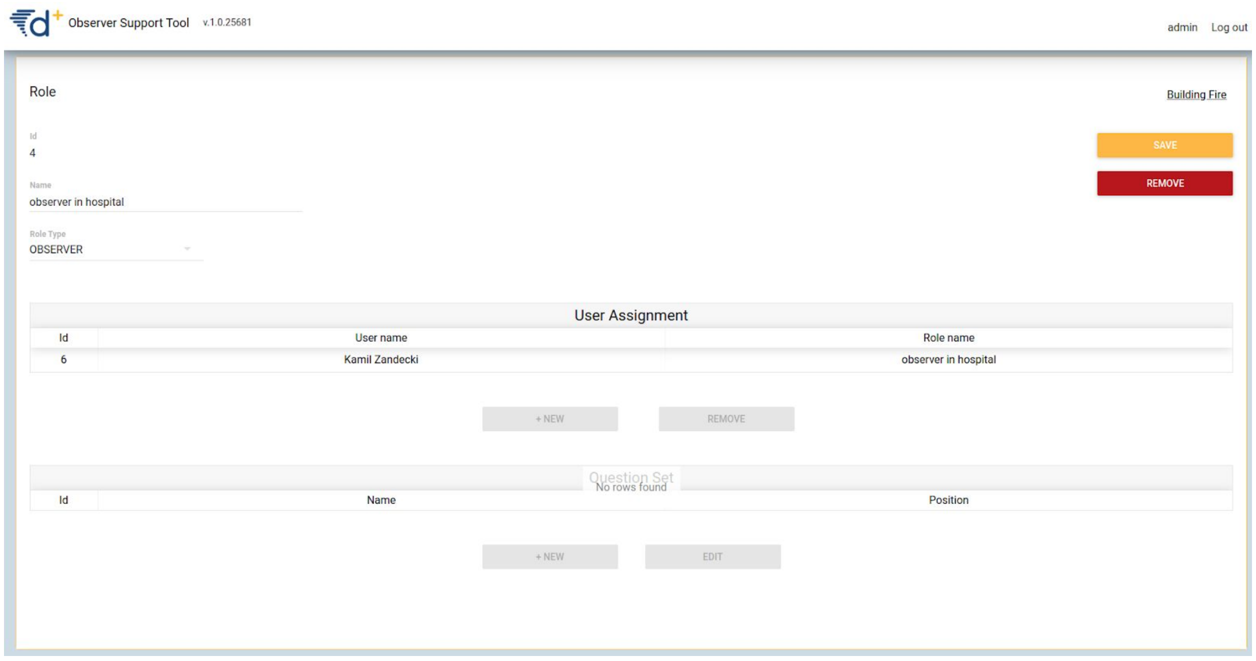

Role

Id
4

Name
observer in hospital

Role Type
OBSERVER

User Assignment

| Id | User name | Role name |
|---|---|---|
| 6 | Kamil Zandecki | observer in hospital |

Question Set
No rows found

| Id | Name | Position |
|---|---|---|

Figure 7. Role detail view

## Managing users and sessions

### Session details

New session can be created by clicking +New, when session window in trial detail is active. After choose session from trial details and click edit or after double clicking left mouse button on session from trial details, system redirects to session details. There are basic details about session, which can be edited or deleted, also data from session can be downloaded. In the user role table admin can assign role to user in this session. User can answer on question only if session is active.

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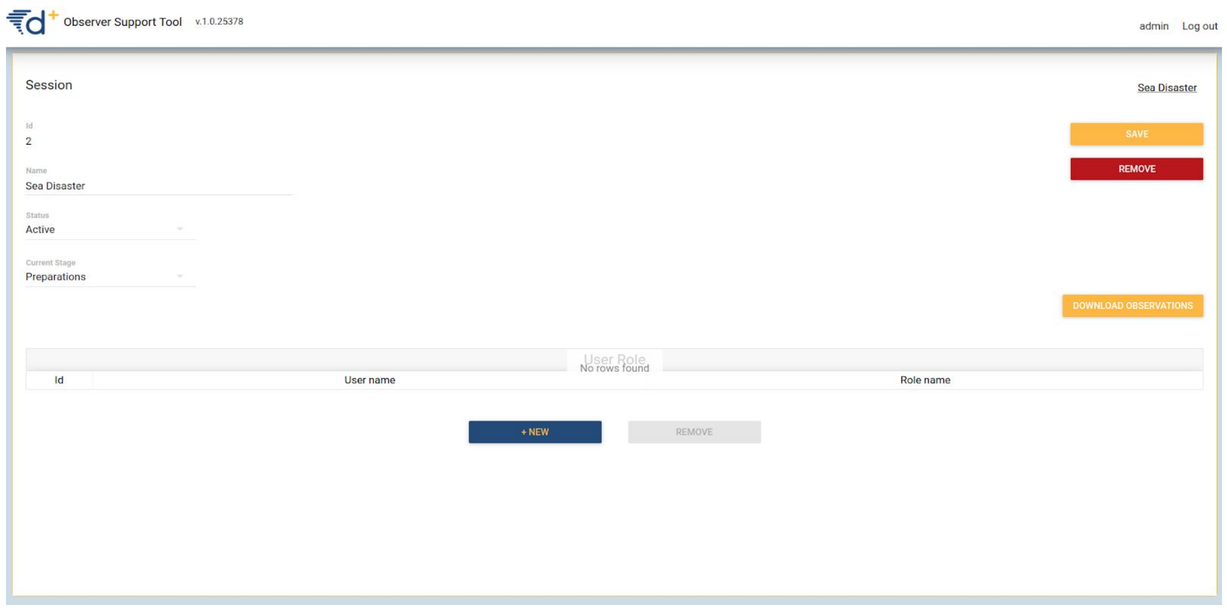


Session

Sea Disaster

Id
2

Name
Sea Disaster

Status
Active

Current Stage
Preparations

User Role

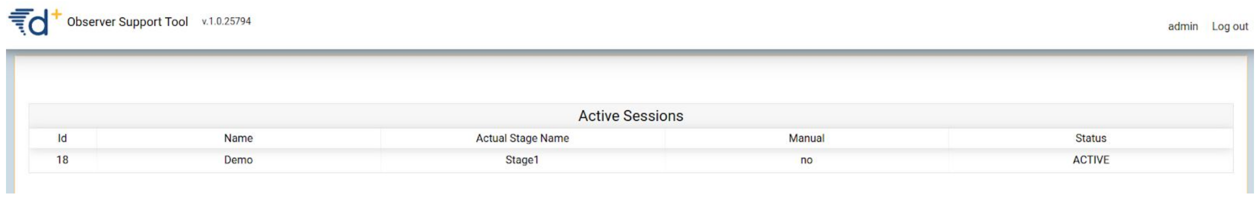
| Id | User name | Role name |
|---|---|---|

No rows found

Figure 8. Session details view

## Session tracking details

After clicking session from launch window, system redirects to session tracking detail. In session tracking details admin can control active sessions. There are informations, which trial is currently used, if session is controlled by testbed  or manually (manual column) and which stage is active at this moment.



Active Sessions

| Id | Name | Actual Stage Name | Manual | Status |
|---|---|---|---|---|
| 18 | Demo | Stage1 | no | ACTIVE |

Figure 9. Session tracking  details view

## User list

If we choosing “USERS” in launch window we will be redirected to User list. There are some basic data about user there.

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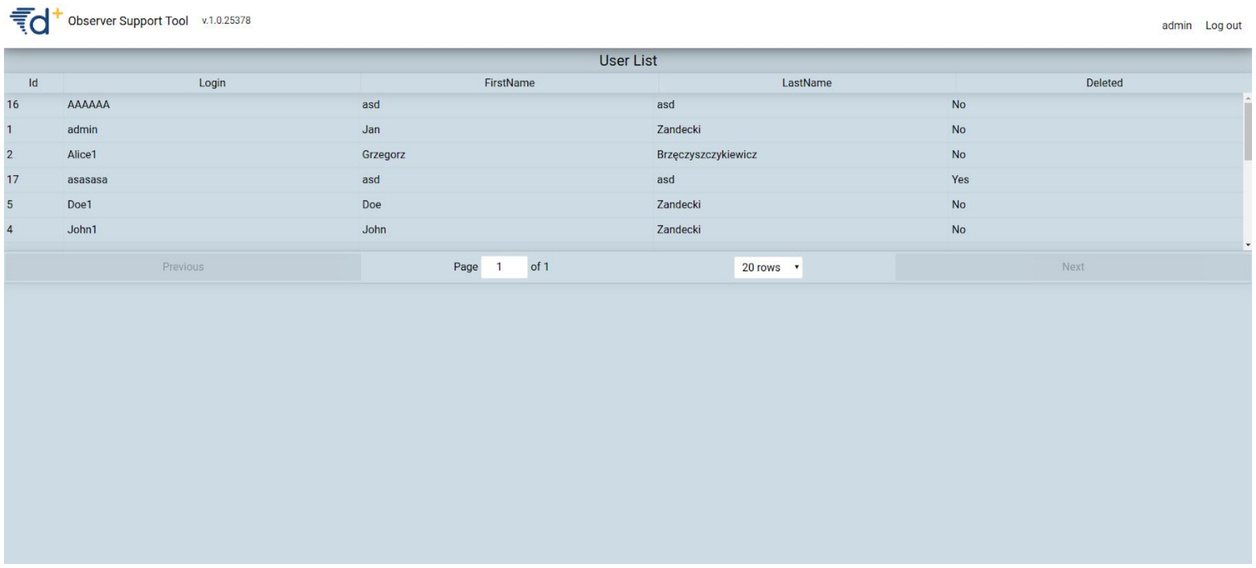

Observer Support Tool v.1.0.25378 admin Log out

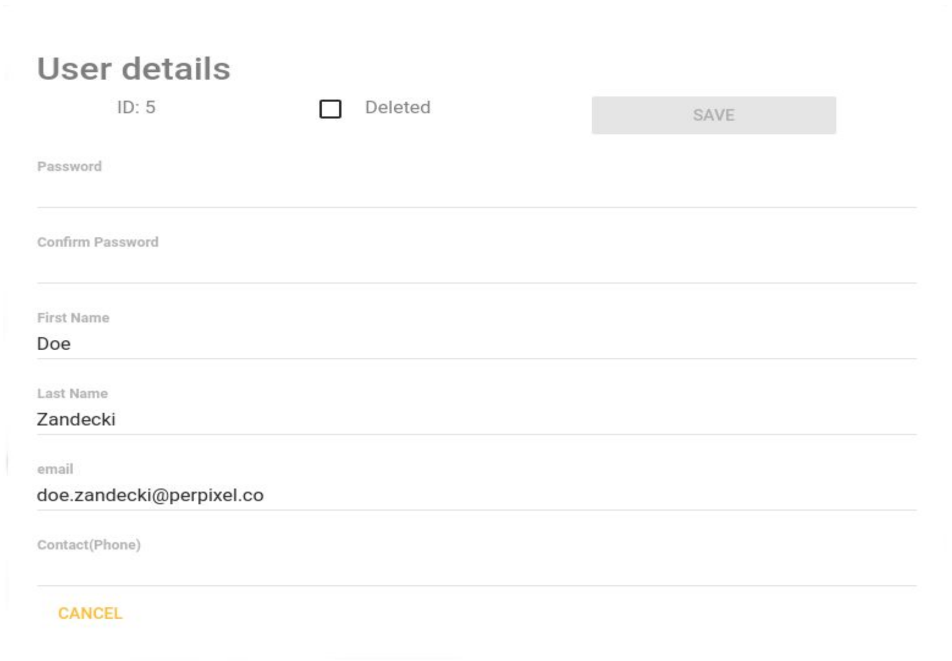
User List

| Id | Login | FirstName | LastName | Deleted |
|---|---|---|---|---|
| 16 | AAAAAA | asd | asd | No |
| 1 | admin | Jan | Zandecki | No |
| 2 | Alice1 | Grzegorz | Brzęczyszczykiewicz | No |
| 17 | asasasa | asd | asd | Yes |
| 5 | Doe1 | Doe | Zandecki | No |
| 4 | John1 | John | Zandecki | No |

Figure 10. User list view

## User details

After choosing user from user list and click edit or after double clicking left mouse button on user from user list, system redirects to user details. There are basic details about user and data about sessions, stages and roles in trial.
Also user can be edited and removed there.
If we want to add new user, we should click +New on User list. Then system redirects to user detail and after filling data, system create new user. All fields are required.


User details

ID: 5 ☐ Deleted

|  |  |
|---|---|
| Password |  |
| Confirm Password |  |
| First Name | Doe |
| Last Name | Zandecki |
| email | doe.zandecki@perpixel.co |
| Contact(Phone) |  |

Figure 11. User details view

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## Observer

Observer can login to server, when admin send him his login and password. After it he can login to system.

### Question Set view

Observer after login to system can choosing from question set from active sessions (if question sets, during present stage in active session, are available to logged user).

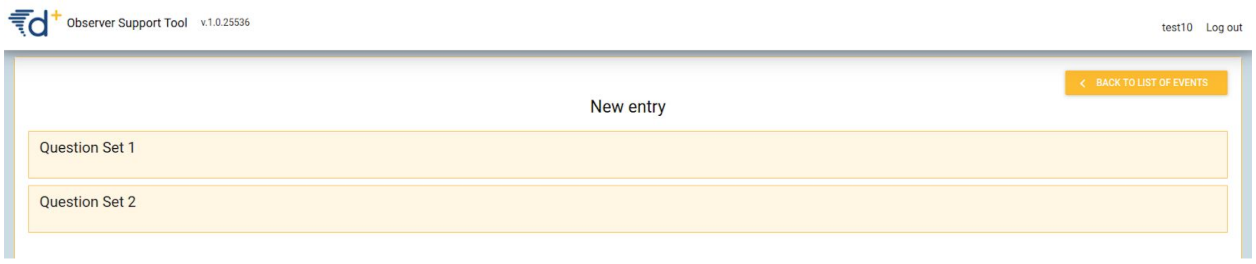
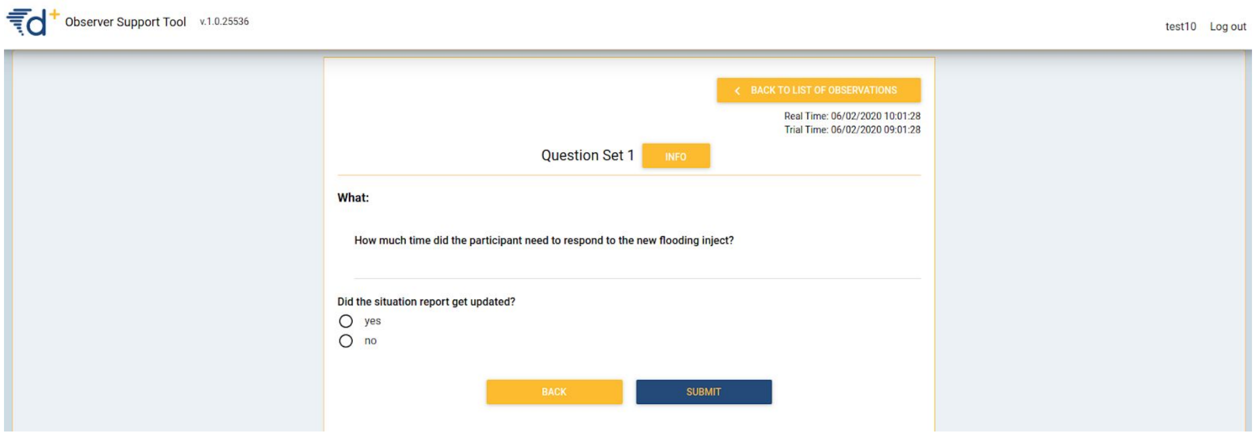


Figure 12. Question set view

### Question view

Observer after choosing question set is redirected to questions from chosen question set. Observer can answer to question from this question set by writing text (textfield) or choosing option (checkbox, radiobutton, slider).



Real Time: 06/02/2020 10:01:28
Trial Time: 06/02/2020 09:01:28

What:

How much time did the participant need to respond to the new flooding inject?

Did the situation report get updated?

yes

no

Figure 13. Question view

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# 3. Deployment Manual

1. Download docker from https://www.docker.com/.
2. Create file and name it *docker-compose.yml*
3. Open this file and paste to this file text below:

```
version: '3'
services:
 zookeeper:
   image: confluentinc/cp-zookeeper:latest
   hostname: zookeeper
   ports:
     - "3500:3500"
   environment:
     ZOOKEEPER_CLIENT_PORT: 3500
     ZOOKEEPER_TICK_TIME: 2000
 broker:
   image: confluentinc/cp-kafka:latest
   hostname: broker
   depends_on:
     - zookeeper
   ports:
     - "3501:3501"
   environment:
     KAFKA_BROKER_ID: 1
     KAFKA_ZOOKEEPER_CONNECT: 'zookeeper:3500'
     KAFKA_ADVERTISED_LISTENERS: 'EXTERNAL://localhost:3501,PLAINTEXT://broker:9092'
     KAFKA_LISTENER_SECURITY_PROTOCOL_MAP:
'EXTERNAL:PLAINTEXT,PLAINTEXT:PLAINTEXT'
     KAFKA_LISTENERS: 'EXTERNAL://0.0.0.0:3501,PLAINTEXT://0.0.0.0:9092'
     KAFKA_OFFSETS_TOPIC_REPLICATION_FACTOR: 1
     KAFKA_DEFAULT_REPLICATION_FACTOR: 1
     KAFKA_MESSAGE_MAX_BYTES: 100000000
     KAFKA_REPLICA_FETCH_MAX_BYTES: 100000000
 schema_registry:
   image: confluentinc/cp-schema-registry:latest
   hostname: schema_registry
   depends_on:
     - zookeeper
     - broker
   ports:
```

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```
    - "3502:3502"
  environment:
    SCHEMA_REGISTRY_HOST_NAME: schema_registry
    SCHEMA_REGISTRY_LISTENERS: 'http://0.0.0.0:3502'
    SCHEMA_REGISTRY_KAFKASTORE_CONNECTION_URL: 'zookeeper:3500'
    SCHEMA_REGISTRY_KAFKASTORE_BOOTSTRAP_SERVERS: 'PLAINTEXT://broker:9092'

 kafka_rest:
  image: confluentinc/cp-kafka-rest:latest
  hostname: kafka_rest
  depends_on:
    - zookeeper
    - schema_registry
    - broker
  ports:
    - "8082:8082"
  environment:
    KAFKA_REST_HOST_NAME: kafka_rest
    KAFKA_REST_BOOTSTRAP_SERVERS: 'PLAINTEXT://broker:9092'
    KAFKA_REST_ZOOKEEPER_CONNECT: 'zookeeper:3500'
    KAFKA_REST_LISTENERS: 'http://0.0.0.0:8082'
    KAFKA_REST_SCHEMA_REGISTRY_URL: 'http://schema_registry:3502'
    KAFKA_CONSUMER_REQUEST_TIMEOUT_MS: 30000
    KAFKA_REST_ACCESS_CONTROL_ALLOW_METHODS:
'GET,POST,PUT,DELETE,OPTIONS'
    KAFKA_REST_ACCESS_CONTROL_ALLOW_ORIGIN: '*'
kafka_topics_ui:
  image: landoop/kafka-topics-ui:latest
  hostname: kafka_topics_ui
  depends_on:
    - kafka_rest
  ports:
    - "3600:8000"
  environment:
    KAFKA_REST_PROXY_URL: 'http://kafka_rest:8082'
    PROXY: 'true'

 kafka_schema_registry_ui:
  image: landoop/schema-registry-ui:latest
  hostname: kafka_schema_registry_ui
  depends_on:
    - schema_registry
  ports:
    - "3601:8000"
  environment:
    SCHEMAREGISTRY_URL: 'http://schema_registry:3502'
    PROXY: 'true'

 postgres:
  image: postgres:9.6
```

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```
  hostname: postgres
  environment:
    POSTGRES_USER: postgres
    POSTGRES_PASSWORD: postgres
    POSTGRES_DB: TRIAL_ADMIN
  volumes:
     - postgres-data:/var/lib/postgresql/data
#    restart: unless-stopped

 admintool:
  image: drivereu/test-bed-admin:latest
  depends_on:
    - postgres
    - broker
    - schema_registry
  ports:
    - "8090:8090"
  volumes:
    - ./admintool-config/gateways.json:/opt/application/config/gateways.json
    - ./admintool-config/solutions.json:/opt/application/config/solutions.json
    - ./admintool-config/topics.json:/opt/application/config/topics.json
    - ./admintool-config/standards.json:/opt/application/config/standards.json
    - ./admintool-config/testbed-solutions.json:/opt/application/config/testbed-solutions.json
    - ./admintool-config/testbed-topics.json:/opt/application/config/testbed-topics.json
    - ./admintool-config/configurations.json:/opt/application/config/configurations.json
  environment:
    KAFKA_BROKER_URL: broker:9092
    SCHEMA_REGISTRY_URL: http://schema_registry:3502
    zookeeper_host: zookeeper
    zookeeper_port: 3500
    schema_registry_url: http://schema_registry:3502
    testbed_secure_mode: 'DEVELOP'
    testbed_init_auto: 'false'
    management_ca_cert_path: http://localhost:9090
    cert_handler_url: https://localhost:8443
    cert_pem_handler_url: https://localhost:8443
    security_rest_path_group: https://localhost:9443
    security_rest_path_topic: https://localhost:9443

 afteractionreview:
  image: drivereu/after-action-review:latest
  depends_on:
    - postgres
    - broker
    - schema_registry
  ports:
    - "8095:8095"
  environment:
    KAFKA_BROKER_URL: broker:9092
    SCHEMA_REGISTRY_URL: http://schema_registry:3502
```

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```
    zookeeper_host: zookeeper
    zookeeper_port: 3500
    schema_registry_url: http://schema_registry:3502

 pgadmin:
   image: fenglc/pgadmin4
   depends_on:
     - postgres
   ports:
       - "5050:5050"
#    restart: unless-stopped

 time_service:
   image: drivereu/test-bed-time-service:latest
   depends_on:
     - broker
     - schema_registry
   ports:
     - "8100:8100"
   environment:
     KAFKA_BROKER_URL: broker:9092
     SCHEMA_REGISTRY_URL: http://schema_registry:3502
     AUTO_REGISTER_SCHEMAS: 'true'

 large_file_service:
   image: drivereu/large-file-service:latest
   ports:
     - "9090:9090"
   environment:
     HOST: localhost
     PORT: 9090

 # wms_service:
 #   image: drivereu/test-bed-wms-service:1.0.10
 #   hostname: wmsservice
 #   environment:
 #     URL: http://localhost/wms/
 #     WMS_PORT: 5101
 #     WMS_HOST: wmsservice
 #     WMS_FOLDER: /server/data
 #     WMS_EXTERNAL_PORT: 5101
 #     WMS_EXTERNAL_HOST: http://localhost/wms/
 #     WMS_EXTERNAL_ADDRESS: http://localhost/wms/
 #     WMS_KAFKA_HOST: broker:9092
 #     WMS_SCHEMA_REGISTRY: http://schema_registry:3501
 #     WMS_CORS_ORIGIN: https://oefen-veiligheidsregio.lcms.nl
 #     WMS_CORS_HEADERS: 'authorization, content-type'
 #   ports:
 #     - 8101:5101
 #   depends_on:
```

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```
#     - broker
#     - schema_registry

 trial_management_tool:
   image: drivereu/trial-management-tool:latest
   depends_on:
     - broker
     - schema_registry
   ports:
     - '3210:3210'
   environment:
     CLIENT_ID: TB-TrialMgmt
     KAFKA_HOST: broker:9092
     SCHEMA_REGISTRY: http://schema_registry:3502
     TRIAL_MANAGER_SERVER_PORT: 3210
     PRODUCE:
system_request_change_of_trial_stage,system_tm_phase_message,system_tm_role_player,syste
m_tm_session_mgmt
     SSL: 'false'
     SSL_PFX: certs/TB-TrialMgmt.p12
     SSL_PASSPHRASE: changeit
     SSL_CA: certs/test-ca.pem
   volumes:
     - trial-data:/app/trials

 ost_db:
   image: janbalbierzitti/ost_database:fddr2_2
   ports:
    - "5437:5432"
   volumes:
    - database-OST:/var/lib/postgresql/data
#    restart: always

 ost_web:
   image: janbalbierzitti/ost_frontend:fddr2_2
   links:
   - ost_api
   ports:
   - "127.0.0.1:85:80"
   - "127.0.0.1:445:443"
#        restart: always

 ost_api:
   image: janbalbierzitti/ost_backend:fddr2_2
   links:
   - ost_db
   ports:
   - "8080:8080"
#    restart: always
```

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```
 silent-producer:
   image: silent-producer
   depends_on:
     - broker
     - schema_registry
   environment:
     KAFKA_HOST: broker:9092
     SCHEMA_REGISTRY: http://schema_registry:3502
     PRODUCE_TOPICS:
simulation_request_unittransport,simulation_request_startinject,simulation_entity_item,sumo_Affec
tedArea,standard_cap,system_timing,system_topic_access_invite
volumes:
 database-OST:
 postgres-data:
 trial-data:
```

4. Go back to the required folder.
5. If you are windows user
   - 5.1. Press **Shift + right click** mouse button anywhere on the folder window (this folder must have file docker-compose.yml).
   - 5.2. Choose open powershell
   - 5.3. Write in terminal **docker-compose up** and press enter
6. If you are linux/ubuntu user
   - 6.1. Press **right click** mouse button anywhere on the folder window (this folder must have file docker-compose.yml).
   - 6.2. Choose open terminal
   - 6.3. Write there **docker-compose up** and press enter
7. Congratulation, your application has been just turned on.

# 4. API

## 1. Get /api/answers

Api let us see answer of trial session including some text inside.
@RequestParam("trialsession_id") long trialSessionId,
@RequestParam("search") String text
**Produces Json**
TrialUserDTO.ListItem user
String Name
String observationTypeName
String observationTypeDescription

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2. Get /api/answers/csv-file

   Api let us load CSV file with answers of session.
   @RequestParam(value = "trialsession_id") long trialSessionId
   **Return null**

3. Delete /api/answers/{answer_id:\\d+}/remove

   Api let us delete answer.
   @PathVariable(value = "answer_id") long answerId,
   @RequestParam("comment") String comment

   **Return null**

4. GET /api/answers-events

   Api let us see all answers and events in session of current user.
   @RequestParam(value = "trialsession_id") long trialSessionId
   **Produces JSON**
   long id;
   long observationTypeId;
   String name;
   String description;
   ZonedDateTime time;
   ZonedDateTime trialTime;
   String type;

5. Get /api/event/search

   Api returns list of events in session.
   @RequestParam(value = "trialsession_id") long trialSessionId
   **Produces JSON**
   public String firstName;
   public String lastName;
   public String trialRoleName;

6. GET /api/observationtypes

   Api returns list of question
   sets
   @RequestParam("trialsession_id") Long trialSessionId
   Long answersId
   String name
   String description

7. GET /api/observationtypes/form

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Api returns roles, which can answer on question set.
@RequestParam("observationtype_id") Long observationTypeId,
@RequestParam("trialsession_id") Long trialSessionId
**Return json**
List<TrialRoleDTO.ListItem> roles
JsonNode jsonSchema,
where in roles are two variables:
long id,
String name

8. /api/observationtypes/admin/addNewQuestionSet
@RequestBody

String name
String description
long trailStageId;
long trailId;
boolean multiplicity;
boolean withUsers;
int position;
List<AdminQuestionDTO.ListItem> questions = new ArrayList<>();
**Return response with http status and json**
long id
String name
String description
long trailStageId;
long trailId;
boolean multiplicity;
boolean withUsers;
int position;
List<AdminQuestionDTO.ListItem> questions = new ArrayList<>();

9. GET /api/observationtypes/admin/getNewQuestionSet
Api let us get question set from chosen stage.
@RequestParam(value = "id") long id
**Return response with http status and json**
long id
String name
String description
long trailStageId;
long trailId;
boolean multiplicity;
boolean withUsers;
int position;
List<AdminQuestionDTO.ListItem> questions = new ArrayList<>();

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10. PUT /api/observationtypes/admin/updateQuestionSet

Api let admin update question set.
@RequestBody
String name
String description
long trailStageId;
long trailId;
boolean multiplicity;
boolean withUsers;
int position;
List<AdminQuestionDTO.ListItem> questions = new ArrayList<>();
**Return response with http status and json**
long id
String name
String description
long trailStageId;
long trailId;
boolean multiplicity;
boolean withUsers;
int position;
List<AdminQuestionDTO.ListItem> questions = new ArrayList<>();

11. DELETE /api/observationtypes/admin/deleteQuestionSet

Api let admin delete question set from a stage.
@RequestParam(value = "id") long id
**Return response with http status and string**

12. GET /api/questions-answers

Api returns data about answer and question.
@RequestParam(value = "answer_id") long answerId
@Produces JSON
long answerId
String name (of observatory type)
String description (of observatory type)
String time
String trialTime
JsonNode questionSchema
JsonNode formData
JsonNode trialRoles

13. POST /api/questions-answers/{answer_id:\d+}/comment

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Api let observer add comment to answer.
@PathVariable(value = "answer_id") long answerId,
@RequestParam("comment") String comment
**Return null**

14. Get /api/trial-time
Api let us know server time.
**Return String with date**

15. Get /api/time-elapsed
Api let us know local time.
**Return String with date**

16. GET /api/role
Api shows all roles in chosen trial.
**Return list of roles with:**
long id
String name
String roleType

17. GET api/stages
Api shows all stages
**Return list of stages with:**
long trialId
String name
LocalDateTime simulationTime

18. POST api/stages/admin/addNewTrialStage
Api let us add stage to chosen trial.
@RequestBody(
long id
long trialId
String name)
**Return response with http request status and in body are:**
Long trialId
Long id
String name

19. GET api/stages/admin/trialStageWithQuestions
Api returns stage with id
@RequestParam(value = "id") long id
**Return response with http request status and in body are:**
Long trialId

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Long id
String name
LocalDateTime simulationTime;
List<AdminObservationTypeDTO.ListItem> questions = new ArrayList<>()

20. DELETE api/stages/admin/deleteTrialStage

Api delete a trial's stage.
@RequestParam(value = "id") long id
**Return response with a http request status and a String**
**"Trial Stage id =" + id + " is deleted".**

21. PUT api/stages/admin/updateTrialStage

Api update a trial's stage.
long id
long trialId
String name
**Return**
**long id**
**long trialId**
**String name**

22. GET /api/role

Api shows all roles in chosen trial.
**Return list of roles with:**
long id
String name
String roleType

23. GET /api/trialsessions/{trialsession_id:\d+}

Api shows data about chosen trial session.
@PathVariable(value = "trialsession_id") long answerId
**Return json with:**
long trialId
String trialName
String trialDescription
String lastTrialStage

24. GET /api/trialsessions

Api shows list of trial session.
Api shows all trials, which are available for logged user.

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**Return list of trials with:**
long trialId
String trialName
String trialDescription
String lastTrialStage

25. GET /api/trialsessions/active

Api shows list of active trial session avaiable from logged user.
**Return list of trials:**
long trialId
String trialName
String trialDescription
String lastTrialStage
long initId
Boolean initHasAnswer
String name

26. PUT /api/trialsessions/{trialsession_id:\d+}/changeStatus

Api let us change status of trial session.
@PathVariable(value = "trialsession_id") long trialSessionId,
@RequestParam(value = "status") String status
**Return null**

27. GET /api/trialsessions/manual/{trialsession_id}/{is_manual}

Api let us choose if stages of trial will be change manually or automatically.
@PathVariable long trialsession_id,
@PathVariable boolean is_manual
**Return String**

```
"current stage in session " +trialSession.getId() + " is: "
+trialSession.getLastTrialStage().getId() +
"/"+trialSession.getLastTrialStage().getName()
            + "  manual mode is " +isManual
```

28. PUT /api/trialsessions

Api let change stage of trial session
@PathVariable(value = "id") Long trialSessionId,
@RequestBody @Validated TrialStageDTO.MinimalItem minimalItem,
Where minimalItem is json {id:value}
**Return json**
long trialId;
Long lastTrialStageId;
LocalDateTime startTime;
LocalDateTime pausedTime;

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29. POST /api/trialsessionscreateNewSessionFile

Api let administrator create new session users and create file with their usernames and passwords.
@RequestBody NewSessionForm newSessionForm,
Where newSessionForm is a json
{long trialId
String initialStage
String prefix
String status
 List<UserForm> users}, where
UserForm is a json
{String email
List<String> role}

**Return null**

30. GET /api/trialsessions/trials

Api shows all trails, which current user is a session manager.
**Return Map(Id : Long, name : String)**

31. POST /api/trialsessionsnewSessionValues

Api returns data about trial.
@RequestParam(value = "trial_id") long trialId
**Return trial node**, in trial node we can find
trialStages, trialRoles, authUsers

32. POST  /api/trialsession/admin/addNewUserRoleSession

Api let us add user to role in trial's session.
@RequestBody
 long trialUserId
 long trialRoleId
 long trialSessionId

**Return adminUserRoleDTO**

33. DELETE /admin/deleteUserRoleSession

Api let us delete user from trial's session.
@RequestParam(value = "trialRoleId") long trialRoleId,
@RequestParam(value = "trialUserId") long trialUserId,
@RequestParam(value = "trialSessionId") long trialSessionId

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**Return Response with http status and string “Trial user session is deleted”**

34. GET /api/ostAllQuestionsForMobile

    Api returns data about questions set.
    **Return List<ObservationTypeDTO.SchemaItem>**
    List<Long> answersId
    String name
    String description
    long id
    List<TrialRoleDTO.ListItem> roles
    JsonNode jsonSchema, where jsonSchema is schema of all questions in question set.

35. GET api/ostTrialId

    Api returns id of Trial.
    **Return Long**

36. GET api/ostTrialSessionId

    Api returns id of Trial Session.
    **Return Long**

37. GET api/ostTrialStageId

    Api returns id of Trial Stage.
    **Return Long**

38. POST api/admin/addNewTrial

    Api let user create trial with name and default parameters

    private long trialIdString
    trialName
    String trialDescription
    String lastTrialStage
    private Boolean archived

    **Return json**

    long trialIdString
    trialName
    String trialDescription
    String lastTrialStage
    Boolean archived

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## 39. POST api/admin/updateTrial

Api let edit trial.
Request Body AdminTrialDTO.ListItem
long trialId;String trialName
String trialDescription
String lastTrialStage
Boolean archived

**Return json**
long trialId
String trialName
String trialDescription
String lastTrialStage
Boolean archived

## 40. GET api/ostTrail

Api returns active Sessions and their actual stages.
RequestParam(value = "trial_name") String trialName
Return String of actual sessions and stages.

## 41. GET api/stages

Api returns stages of chosen session.
@RequestParam(value = "trial_id") long trialId, Pageable pageable)
**Return PageDTO<TrialStageDTO.ListItem>.**
In the json are:
long trialId
String name
LocalDateTime simulationTime,
long id.

## 42. GET api/user

Api shows users in chosen trial session.
RequestParam(value = "trialsession_id") long trialSessionId, Pageable pageable
**Return PageDTO<TrialUserDTO.ListItem>**
In the json are:
long id
String firstName
String lastName

## 43. GET api/user/version

Api shows actual version of application.

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**Return String**

## 44. POST api/questions/admin/addNewQuestion

Api let add question to question set.

@RequestBody
String name
String description
long observationTypeId
AnswerType answerType
int position
String jsonSchema
boolean commented

**Return response with http status and json**
long id;
String name;
 String description;
 long observationTypeId;
 AnswerType answerType
 int position
 String jsonSchema
 boolean commented

## 45. GET api/questions/admin/getFullQuestion

Api let us get details about question.

@RequestParam(value = "id") long id

**Return response with http status and json**
long id;
String name;
 String description;
 long observationTypeId;
 AnswerType answerType
 int position
 String jsonSchema
 boolean commented

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## 46. DELETE api/questions/admin/deleteQuestion

Api let us delete question from question set.

(@RequestParam(value = "id") long id)
**Return response with http status and string**
"Question id =" + id + " is deleted"

## 47. PUT api/questions/admin/updateQuestion

Api let us update question.

@RequestBody
String name
String description
long observationTypeId
AnswerType answerType
int position
String jsonSchema
boolean commented

**Return response with http status and json**
long id;
String name;
String description;
long observationTypeId;
AnswerType answerType
int position
String jsonSchema
boolean commented

# 5. Database

This database is used in OST system.

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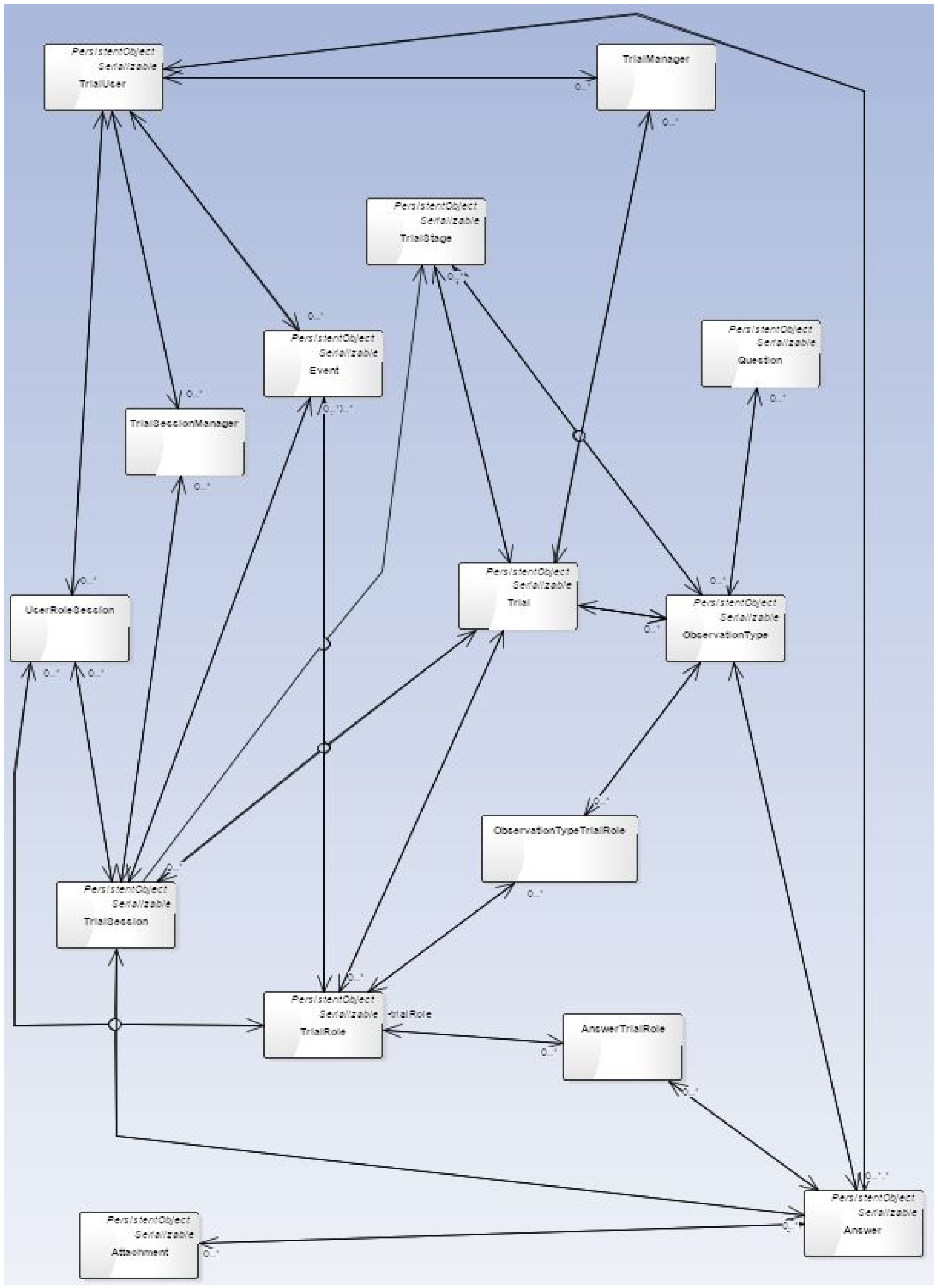

Figure 14. Schema of database

In this model ObservationType=Question Set.

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