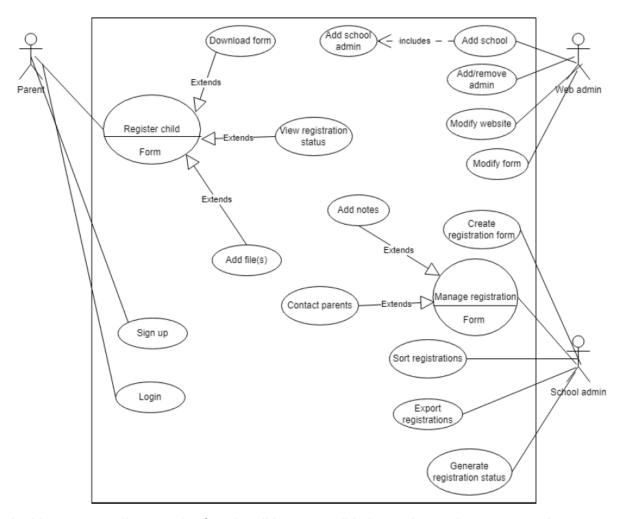
## **UML Case Diagram:**



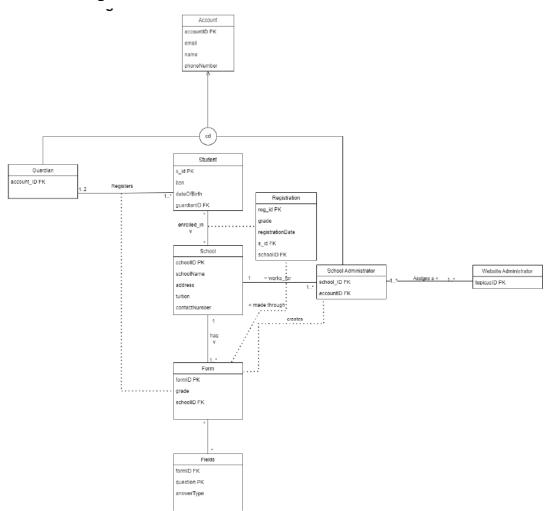
In this use case diagram, the functionalities accessible by each user in our system is outlined. The parent can register the child through a form, this form is downloadable, its status can be accompanied and it is also possible to add files to the form.

The parent may choose to sign up on our website, though that is not mandatory. If they do have an account, they may log in.

The school admin may create a registration form, and manage existing registrations made by parents through the form. They may update the status of the registration, add notes or contact the parents through the application. They are able to sort the registration in the database by alphabetical order or date. It is also possible for them to export all registrations into an Excel file.

The web admin is a user isolated from our system. He has a completely different website environment. He may modify the web application itself, add or remove schools and manage their respective administrators.

## **UML Class Diagram:**



This is the class diagram that we have developed in order to derive the DB schema. It is possible to see that there are two types of accounts: Guardians (parents) and School Administrators. The parent is able to register a child at a school by filling out a form. This form is created by the school admin and may have multiple fields. This diagram illustrates the main functionality of the system.

## **DB Schema**

This is the schema that was derived from the aforementioned class diagram. Constraints were not illustrated, and as of 30 June 2023 - changes were made to the initial document. account(account\_id, email, phone\_number, name, address,

```
student(student id, bsn, name, birth date, guardian id,
       PK(student id),
       FK(guardian_id) REF guardian(guardian_id) ON DELETE CASCADE
)
webadmin(topicus id, account id,
       PK(topicus id),
       FK(account_id) REF account(account_id) ON DELETE CASCADE
)
school(school_id, school_name, address, tuition, contact_number,
       PK(school id)
)
schooladmin(school_id, account_id,
       FK(account id) REF account(account id) ON DELETE CASCADE,
       FK(school id) REF school(school id) ON DELETE CASCADE
)
registration(registration id, grade, registration date, student id, school id,
       status, allowedit,
       PK(registration id),
       CHECK (registration id >= 0 AND registration id <= 999999)
       FK(school_id) REF school(school_id) ON DELETE CASCADE,
       FK(student id) REF student(student id) ON DELETE CASCADE
)
form(form_id, grade, school_id,
       PK(form_id),
       FK(school id) REF school(school id) ON DELETE CASCADE
)
fields(form_id, question, input_type, question_id,
       PK(question_id),
       FK(form id) REF form(form id) ON DELETE CASCADE,
       CHECK (input type::text = 'email'::text OR input type::text = 'number'::text OR
       input_type::text = 'date'::text OR input_type::text = 'text'::text OR input_type::text =
       'tel'::text OR input_type::text = 'file'::text OR input_type::text = 'header'::text)
)
```