**U N I V E R Z I T A O B R A N Y**

Fakulta vojenských technologií, Katedra informatiky a kybernetických operací

**ZÁPOČTOVÁ PRÁCE (ZP)**

**Analýza informačních zdrojů (IZ)**

UML modelování

Slovník kybernetické bezpečnosti

Týmová práce

**Zpracoval: Tým X: Anh Nhat NGUYEN, Phung Hieu QUACH, Hieu Duc TRAN**

**Datum:**

**Obsah**

[Seznam obrázků 2](#_Toc178152922)

[Seznam tabulek 2](#_Toc178152923)

[1. Popis úloh/modulů/struktur ze zadání ZP 3](#_Toc178152924)

[2. UML modelování, model 1, jeho název 3](#_Toc178152925)

[3. UML modelování, model 2, jeho název 3](#_Toc178152926)

[4. UML modelování, model 3 (a 4), jeho název 3](#_Toc178152927)

[5. Rozvoj slovníku kybernetické bezpečnosti 3](#_Toc178152928)

[6. Závěr 3](#_Toc178152929)

## Seznam obrázků

[Obrázek 1 Ukázka 4](#_Toc115509553)



Obrázek 1 Ukázka

## Seznam tabulek

[Tabulka 1 Přidělené pojmy slovníku 3](#_Toc115509559)

# 1. Popis úloh/modulů/struktur ze zadání ZP

**Model 1: Classification**

A computer screen shot of a code

Description automatically generated

 Attributes:

* id: UUID
  + The unique identifier for this classification entry.
* lastChange: DateTime
  + Records the last time this classification was modified.
* date: DateTime
  + The date the classification was created or took effect.
* order: Integer
  + The order or priority of this classification.
* student\_id: A reference to the user's ID, indicating that this classification is associated with a specific student.
* semester\_id: A reference to the semester ID, linking this classification to a particular semester.
* classificationlevel\_id: A reference to the classification level, specifying the type or level of classification assigned.

 Associations:

* Student (1..1 relationship): Each classification is linked to a specific student (represented by the student\_id field).
* Semester (1..1 relationship): Each classification is linked to a specific semester (represented by the semester\_id field).

**Model 2: Program**

A computer screen with numbers and letters

Description automatically generated

 Attributes:

* id: UUID
  + The unique identifier for the academic program.
* lastChange: DateTime
  + The date and time of the last modification to the program details.
* name: String
  + The name of the academic program in a specific language.
* name\_en: String
  + The English name of the program (currently empty).
* type\_id: UUID
  + A reference to a program type, indicating the category or classification of the program.
* group\_id: UUID
  + A reference to a group that this program is associated with.
* licenced\_group\_id: UUID
  + A reference to another group that holds the license or authorization for the program.

 Associations:

* Type (1..1 relationship): Each academic program has a type associated with it, such as a degree or a specific type of curriculum (represented by type\_id).
* Group (1..1 relationship): Each academic program is associated with a group, which could represent a department or an academic division (represented by group\_id).

**Model 3: Semester**

A computer screen with numbers and letters

Description automatically generated

 Attributes:

* id: UUID
  + The unique identifier for this semester entry.
* lastChange: DateTime
  + The last date and time when the semester record was modified.
* order: Integer
  + Indicates the position or order of the semester, potentially within an academic program.
* credits: Integer
  + The total number of credits associated with this semester.
* classificationtype\_id: UUID
  + A reference to the classification type, which suggests the type or category of classification applied to the semester.
* subject\_id: UUID
  + A reference to the Subject entity, indicating that this semester is associated with a specific subject.

 Associations:

* Subject (1..1 relationship): Each semester has one subject associated with it (represented by subject\_id).

**Model 4: Subject**

A computer screen with numbers and letters

Description automatically generated

* Attributes:
  + id (UUID): Unique identifier for each subject.
  + program\_id (UUID): Reference to the associated Program.
  + lastchange (date): Represents the last update date of the subject.
  + name (string): The name of the subject in its original language.
  + name\_en (string): The English name of the subject (empty in the example).
  + group\_id (UUID): Reference to the associated Group.
* The Acsubject class serves as the central entity with relationships to both Program and Group.

**Model 5: User**

**A computer screen shot of a black background

Description automatically generated**

Attributes:

* id: A unique identifier (UUID) for the user.
* name: The first name of the user (in this case, "John").
* surname: The last name of the user ("Newbie").
* email: The user's email address ("john.newbie@world.com").

 Associations:

**User and Classification**:

* There is a direct relationship between the User class and the Classification class.
* The arrow indicates that a User is associated with or linked to the Classification. This suggests that users are somehow involved in the classification process, possibly by contributing to or being categorized by this classification.

**Model 6: Group**

A computer screen with numbers and letters

Description automatically generated

Attributes:

* id: UUID
  + A unique identifier (UUID) for the group.
* name: String
  + The name of the group (in this case, "Uni").
* lastchange: DateTime
  + A timestamp indicating the last time the group's information was updated.
* valid: Boolean
  + A boolean value indicating whether the group is currently active or valid (true means it is valid).
* grouptype\_id: UUID
  + A reference to the type of the group, linking it to a specific category or classification of groups.
* mastergroup\_id: UUID
  + A reference to a parent or master group, which can be null if the group does not belong to a higher hierarchical group.

 Associations:

* A self-referential relationship to other Group entities using mastergroup\_id, indicating hierarchical group structures.

# Basic relationships

# A diagram of a diagram Description automatically generated

# 2. UML modelování, model 1, jeho název

Popis a výsledek modelování v prostředí EA.

# 3. UML modelování, model 2, jeho název

Popis a výsledek modelování v prostředí EA.

# 4. UML modelování, model 3 (a 4), jejich názvy

Popis a výsledek modelování v prostředí EA.

# 5. Rozvoj slovníku kybernetické bezpečnosti

Doplňte pojmy (CONCEPT) do Slovníku kybernetické bezpečnosti (Cyber Security Glossary) podle podrobného zadání. Slovník se člení na oblasti:

1. Strategické/obecné pojmy (Strategic-common concepts). STRATEG
2. Organizace, orgány, funkce (Organizations-bodies-functions) ORG-FUN
3. Chráněná aktiva (Protected assets). ASSETS
4. Hrozby a útoky – obecně (Threats and attacks-general). THR-ATT\_GEN
5. Hrozby a útoky – škodlivý SW (Threats and attacks-malware). THR-ATT\_MAL
6. Hrozby a útoky – napadení sítě (Threats and attacks-network). THR-ATT\_NET
7. Hrozby a útoky – napadení web.aplikací (Threats and attacks-web-applic). THR-ATT\_WEB
8. Kybernetická obrana - metody,postupy,návody (Cyber defence-met, proc, instr) CYB-DEF\_MET
9. Kybernetická obrana - nástroje (Cyber defence-tools) CYB-DEF\_TOOL

# 6. Závěr