

Jan Cakl - 466668

Martin Štefanko - 422697

### Adapter

- mail server – adapter for external third party mailing client (e. g. Google, Seznam)
  - we want an adapter which would provide client services through the common mailing interface used for IS mailing – users can interact with emails in the same way as it they were received in IS
  - adapter can on background make some external network calls (e. g. REST) to the third party mailing client
- document server – adapter for third party storage providers
  - cloud storage, external hard-drives used as common IS documents through common interface
  - user can use IS document server to access external storage service

### Strategy

- salaries – types of agreements
  - different types of agreement – we use the same algorithm for the salary computation but the final value is derived by the type of agreement like for instance hour salary, month salary...
- schedules - different scheduling algorithms for time management and planning
  - we can use different strategies for course collisions, room planning...
- automatic course registration – different behaviors depending on student selection
  - automatically remove courses which cannot be registered
  - automatically sent a apply for exception to the teacher
  - automatically register mandatory subject for the student field of study

### Observer

- discussions – dynamic updates for replies, Noticeboard in IS
  - \* Our subject is track discussion forum (where notification is allowed).
  - \* Observers - We can track discussion forum in Favourite Discussion Groups (we get notification from the publisher) or we can subscribe to changes via RSS.
- schedule – automatic update after course(seminar) registration/ deregistration,
  - \* Subject is courses registration list.
  - \* Observers are:
    - \* timetable – responds to changes in courses registration list
    - \* Check my studies – question mark = registered course  
red cross = unregistered course
- automatic notebook points after scanning of test
  - \* Subject is scanning test.
  - \* Observers: Points from the test are available in notebooks and in ROPOT Applications.

### Composite

- We want to show the object hierarchy.
  - \* Component – declare interface for his sons and Clients
  - \* Composite store the reference to his children. Implemented operation for work with children.

- We can use for scheduling -> semester -> week -> day -> teaching period  
Composite is semester -> week, etc.
- We can use for user structure -> Faculty -> Field -> Course -> Student
- We can use for user structure document server – folders → subfolders → concrete documents.