KTH ROYAL INSTITUTE
OF TECHNOLOGY

Automating administrative tasks - spend your cycles where needed and avoid unnecessary work: higher quality, less effort

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Automation related to degree projects: Chip

Every degree project leads to an entry in **LADOK** and those that are successful lead to a oral presentation, active listening, opposition, and the thesis and associated meta data being put into **DiVA**.

However, there are some important data and metadata that are needed, such as:

> Student(s), program of study, degree for which the student is planning to apply, Examiner, Supervisor, Course code, Degree project course name, titles, keywords, abstracts, oral presentation information, opponent information, UKÄ/SCB subject category, …

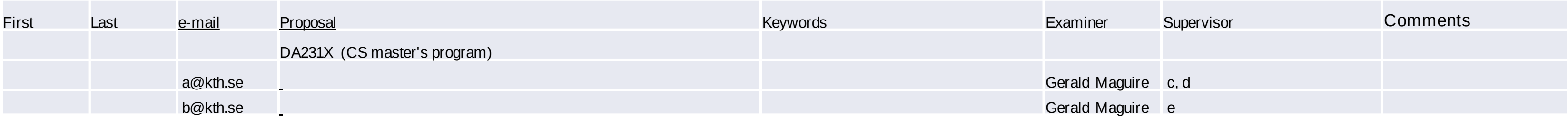
This information facilitates the *entire* degree project process:

∴put this information into the Canvas gradebook and into the thesis itself

- create a customized template for the student (or students)
- create an announcement for the oral presentation
- handle reporting of active listening
- make a **correct** cover
- produce the meta data for DiVA and the reporting (with titles) into LADOK

Where does the information come from?

For example, for students taking the course degree project courses: DA231X (CS master's program), DA250X (double degree), DA222X (older course) P3 and P4 the person responsible for these students (Mats Nordahl) enters data into a **spreadsheet**, such as "*Master's thesis proposals CS P3 2022*"



First	Last	e-mail	Proposal	Keywords	Examiner	Supervisor	Comments
			DA231X (CS master's program)				
		a@kth.se			Gerald Maguire	c, d	
		b@kth.se			Gerald Maguire	e	

A script takes this information: adds the student to a section within the course for this examiner, indicates the name of the examiner in a column in the gradebook, enters the name(s) of the supervisor(s) in a column in the gradebook, ...

```
insert-examiners-and-supervisors-from-spreadsheet.py course_id spreadsheetFile
```

This uses a file, such as *spreadsheet_aliases-33514.json* to map names to Canvas user names (for examiners and supervisors), i.e., "Gerald Maguire": "Maguire Jr, Gerald Quentin"

The gradebook column for the examiner offers a pull-down menu of all of the examiners for all of different the degree project courses in the Canvas course room (derived from **KOPPS**) - so it is possible to set the examiner entry via this means (i.e., in the case that there is no spreadsheet).

See EECS 2nd cycle degree projects: https://canvas.kth.se/courses/33514/gradebook

Where does the information go?

LaTeX template - https://www.overleaf.com/read/qxvttmmqbgdt creates a “For DIVA” page at the end of the thesis in pseudo JSON format

1. To extract the pseudo JSON from the PDF file (as the student has used acronyms in the abstracts, so we need to get their acronyms file from the student):

```
   extract_pseudo_JSON-from_PDF.py --pdf xxxx-20220608.pdf --acronyms
xxx_acronyms.tex
```

2. To make the MODS file:

```
  JSON_to_MODS.py --json calendar_event.json
```

Import the resulting MODS file into **DiVA**, see video at: Extract_from_PDF_to_DiVA-20220614.mp4 https://kth-my.sharepoint.com/:v:/g/personal/maguire_ug_kth_se/EfssQFxhVRRBtZzvbQnwuM0BQBRlY-6r8ezgIwlx4200A?e=sm6B7X

3 “amanuenser” working for Sofia Norlander sofiano@kth.se on the above

Malin Björk malinbj@kth.se to produce pedagogical instructions for students about the template

Also, possible to use the JSON file to report the titles in **LADOK** (Carlos Saito carsai@kth.se has extended his API to do allow reporting of the titles).

What else can be done?

Extracted JSON can be used to announce the oral presentation:

```
JSON_to_calendar.py -c 11 --json calendar_event.json
```

Publishes an announcement in Canvas course 11, in the Canvas course's calendar, and \third (eventually) in the KTH Calendar.

> To publish an KTH calendar event, the software supports the development version of the KTH Cortina API. However, this is API not yet in production and requires a KTH Cortina Access Key.

At the oral presentation I ask students who want to be an active listener to submit their **name** and **KTH e-mail** in the chat session (if they have not signed up in advance to be an active listener).

Save the chat information and make a file of lines: name <email address>

Run:

```
    record_active_listener.py course_id inputfile student_presenting_email
```

Records a grade for the active listening assignment (1 or 2) – prompts you with the submission if the student has submitted information about which presentation they planned to be an active listener for – notes the name of the student presenting in the comment for the grade.

Customizing the template

Example of creating a customized JSON file for two students

```
create_customized_JSON_file.py --canvas_course_id 31167 --author s1@kth.se --author2
s2@kth.se --language eng --programCode TIDAB --Examiner maguire --Supervisor vastberg   --
Supervisor2 xxx --courseCode II142X  --exam högskoleingenjör
```

For one Master’s student:

```
create_customized_JSON_file.py --canvas_course_id 33514 --author s1 --language eng --
programCode TCSCM  --Examiner maguire --Supervisor vastberg   --Supervisor2 xxx  --
courseCode DA231X  --exam master
```

Create a customized LaTeX project

```
customize_LaTeX_project.py --json customize.json --file template.zip --initialize
```

Student can now upload the resulting customized zip file into Overleaf

More information

Code

https://github.com/gqmaguirejr/E-learning
https://github.com/gqmaguirejr/Canvas-tools

Documentation built into the LaTeX template

https://www.overleaf.com/read/qxvttmmqbgdt

Locate the lines near the end of the examplethesis.tex file:

```
% Information for authors
%\include{README_author}
\subfile{README_author}
% information about the template for everyone
\input{README_notes/README_notes}
```

Uncomment the examiner or administrator inputs, then recompile the LaTeX project:

```
% information for examiners
\input{README_notes/README_examiner_notes}

% information for administrators
\input{README_notes/README_for_administrators.tex}
```

Template for Media Technology (TIMTM) and Media Management (TMMTM) programmes: https://www.overleaf.com/read/xdwzpdyjhtnm
Also, there is a DOCX template and covers: https://canvas.kth.se/courses/11/pages/templates-for-1st-and-2nd-cycle-theses-some-templates

Automation of normal courses: Daniel

1 bulkrapportering

2 upptäcka avslutad kurs eller komponenter

3 Canvas till Ladok med rätt datum

4 formler för betygsättning

9 hantering av csv export (automatiserad)

12 rubriker (rättningsmatriser?)

13 inrapportering i Canvas kopplad till automatisk betygsättning

14 automatiserad betygssättning/resultatrapportering

17 betygsätta studenter frän olika kursutbud

Some automation of TA management, some upcoming work on recruiting TAs, a TA pool etc.

5 gruppbildning

6 tidsboknin

15 hitta potentiella TA:er (amanuenser som har gått din kurs)

16 ta bort studenter som tagit examen från TA-poolen

Further Automation: Alexander

Transfer of student bookings from Canvas calendar into the queuing system.

There is an embryo of IT-support (REST-api) for this kind of things. Where we are at the moment and some options for going forward.