CMPUT 401

Moodle Exams

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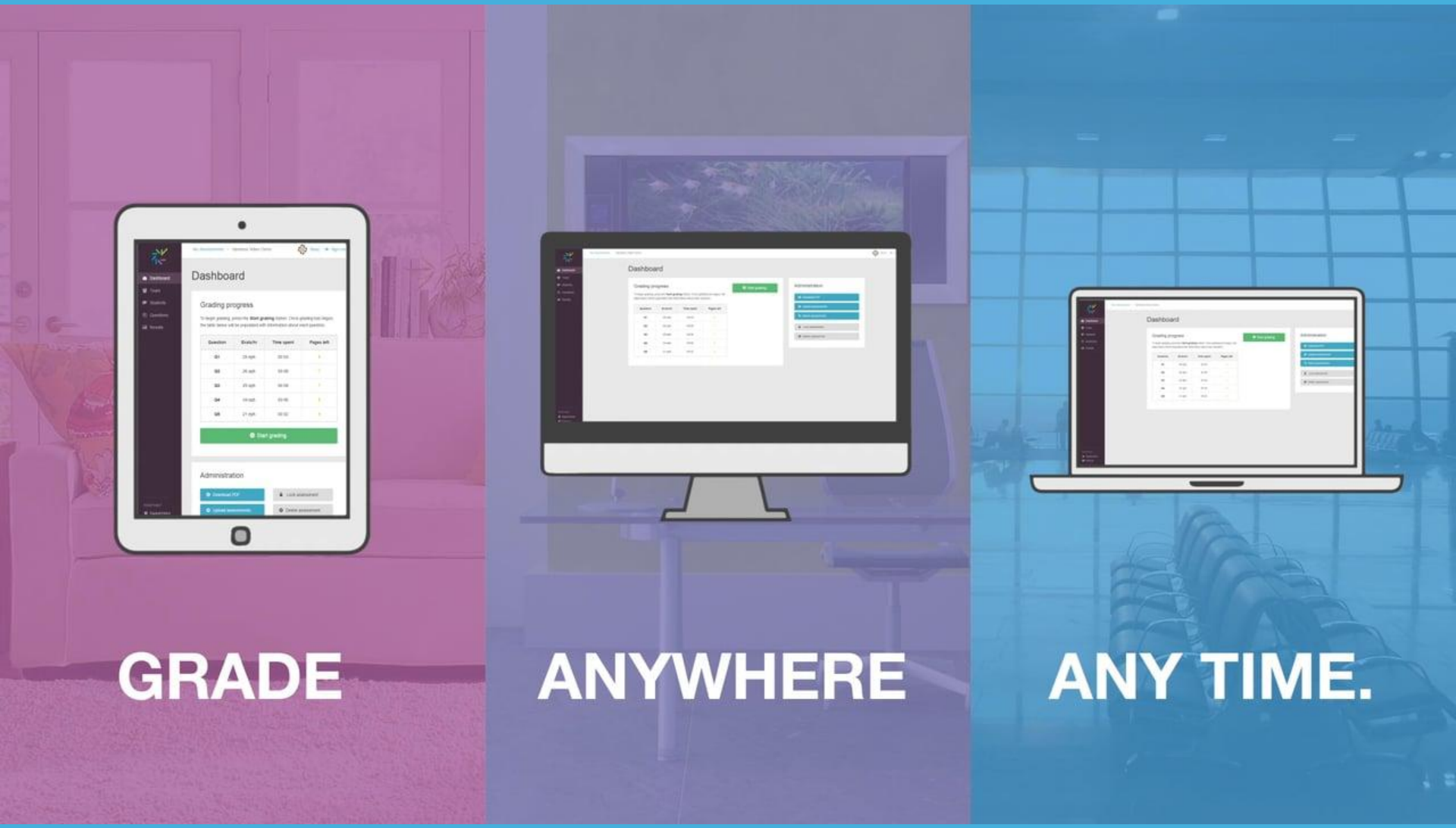
1.
Purpose

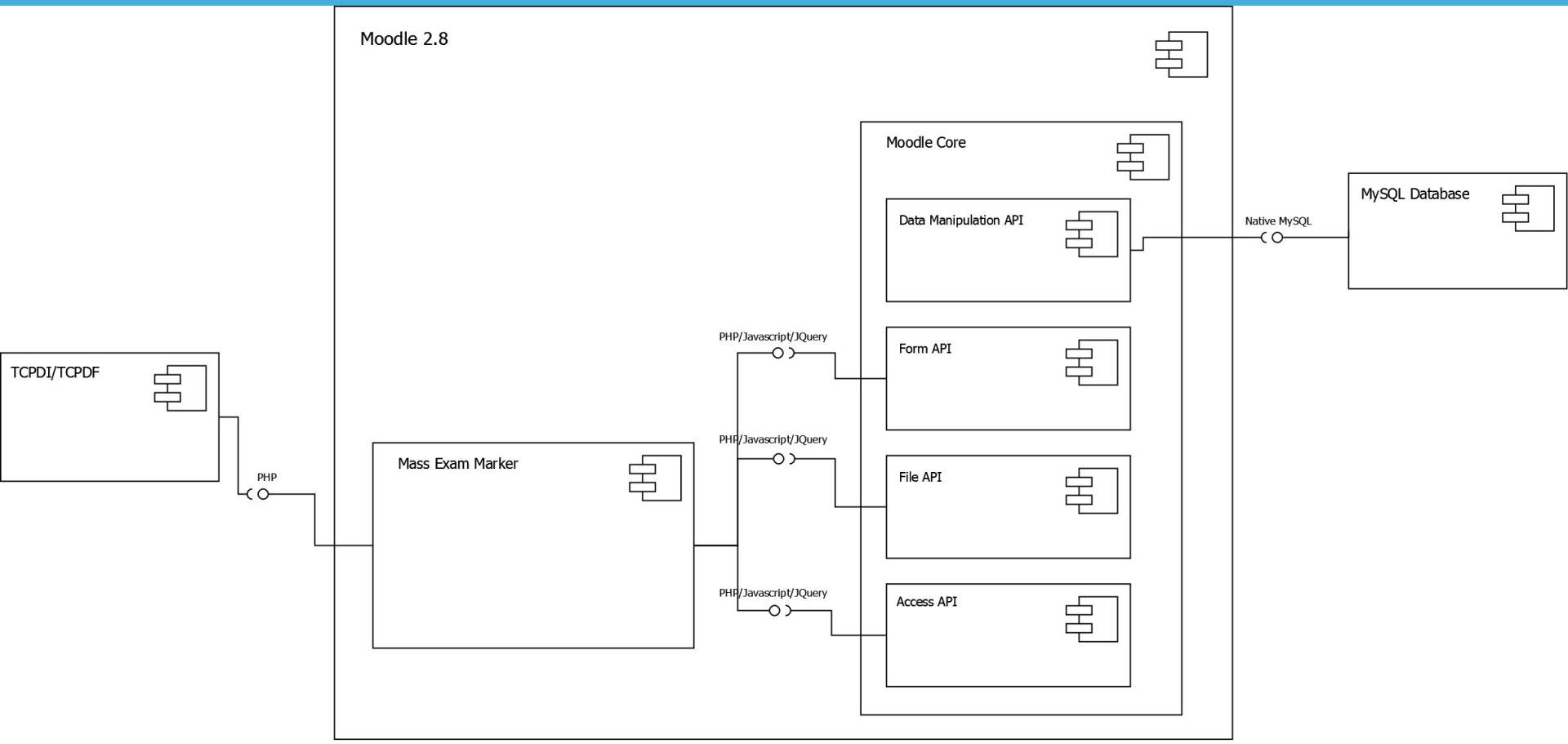
Purpose

- Efficient grading
- Easy redistribution
- Effortless Collaboration

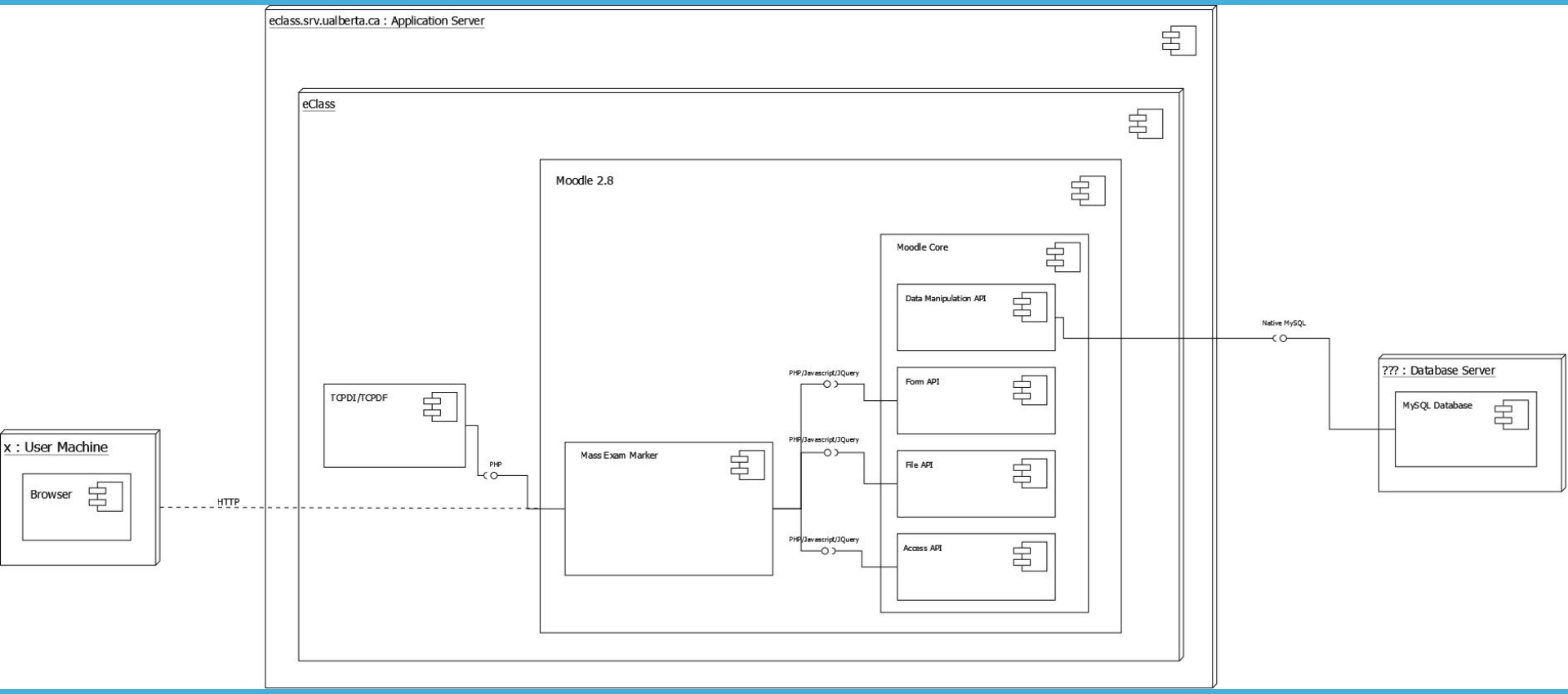
CrowdMark


Dashboard
Grading progress
Administration
Dashboard
Dashboard
GRADE
ANYWHERE
ANY TIME.

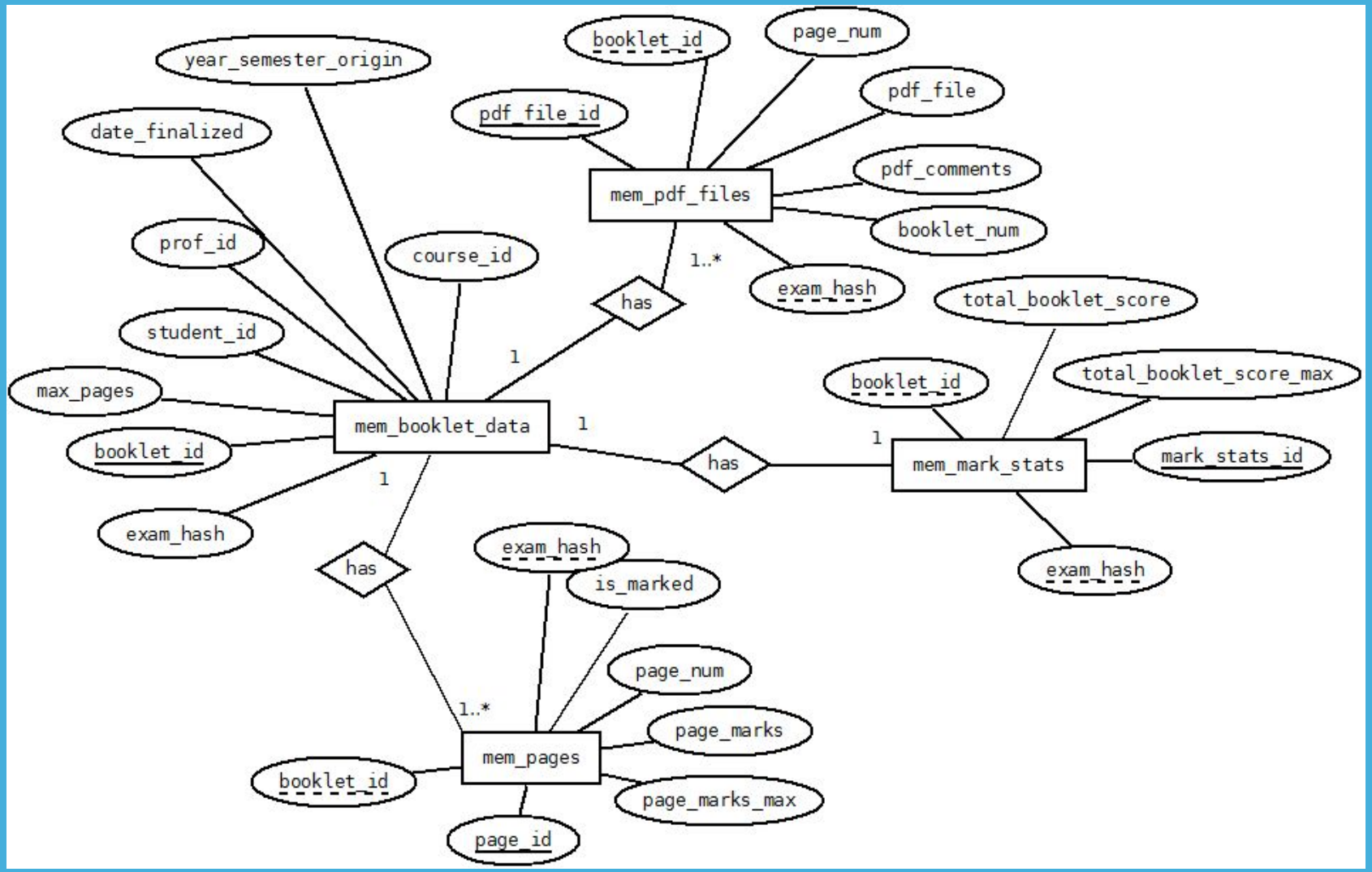
2.
Component Architecture



Component Diagram



Deployment Diagram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page_num
year_semester_origin
pdf_file
pdf_file_id
date_finalized
pdf_comments
mem_pdf_files
booklet_num
prof_id
course_id
1..*
exam_hash
has
total_booklet_score
student_id
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booklet_id
total_booklet_score_max
max_pages
mem_booklet_data
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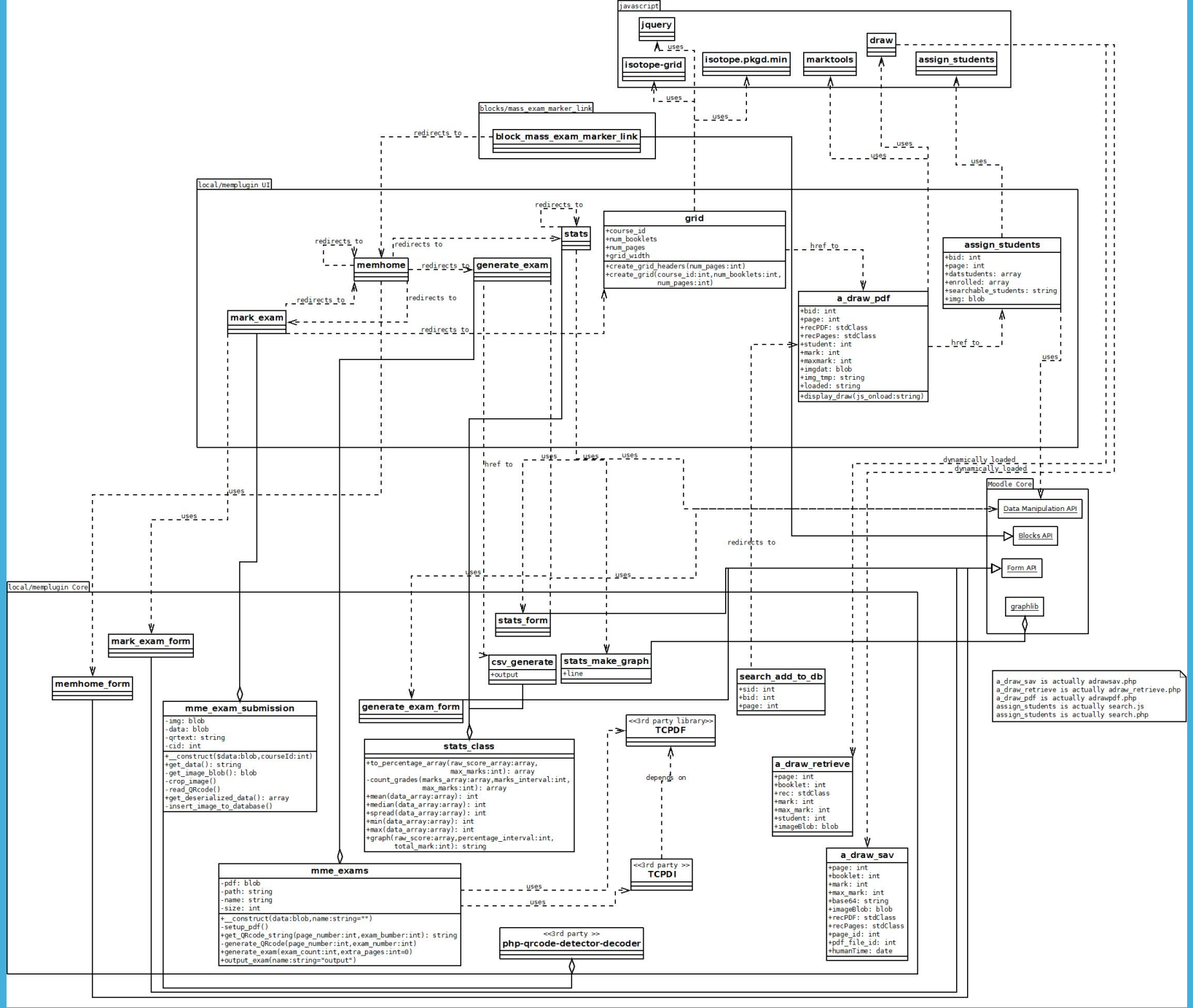
1
booklet_id
has
mem_mark_stats
mark_stats_id
1
exam_hash
exam_hash
has
exam_hash
is_marked
page_num
1..*
page_marks
mem_pages
booklet_id
page_marks_max
page_id

ER Diagram



UML Class Diagram

3.
Technologies Used

Technologies Used

Moodle 2.8

- PHP
- HTML/CSS
- Javascript
- jQuery
- MySQL
- Python

VMs

- Cybera
- VirtualBox

Testing

- PHPUnit
- Behat

Documentation

- Doxygen

Other Libraries

- TCPDF / TCPDI
- ImageMagick / Imagick
- Php-qrcode-detector-decoder
- Isotope
- Ghostscript
- Moodle plugins

4.
Screencast Segment

5.
Key Challenges and Solutions

Challenge: Moodle

- Outdated API
- Difficult to learn
  - Insufficient online documentation
- IST restrictions
  - No write access
- Independent Libraries
  - No native PDF manipulator in Moodle. Need external libraries.

Solution: Moodle

- Practice and test on the sandbox
- Use accepted external libraries
- Get in contact with IST

Challenge: Languages

- Little experience with PHP
- Same with Javascript/jQuery

Solution: Languages

- Spent first couple weeks brushing up
- Asking for help from TAs of previous Moodle projects.

Challenge: Time

- Organizing meetings
  - With TAs and group members. All have very different schedules.
- Tutorials

Suggestion: Time

- For next semester, having a dedicated lab time for tutorials and meetings would be invaluable.

6.
Lessons Learned

Ask for Time

- Ask for Time
- Database first
-

- [ ] Ask for Time
- [ ] Database first
- [ ] Moodle is hard

THANKS!

Any questions?