


Exam Management System - PROPOSAL

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Exam Management System

- Exam Management System
- מערכת ניהול מבחנים

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Customer

- Customer Name – Dr. Mayer Goldberg
- Customer Representative Person – Dr. Mayer Goldberg
 - Role – Lecturer, Head of Teaching Committee
 - Email – gmayer@little-lisper.org
 - Phone Number - 055-660-3392
 - Address

Project's Motivation and Purpose

- What problem does it intend to solve?
 - With the increase in the size of the student body, it has become difficult to manage grading within the given time constraints. This has led many courses to adopt a multiple-choice format, which is faster to grade, and easier to analyze.
 - The creation of challenging multiple-choice tests in the sciences is a non-trivial task.
 - The creation of one-time-use questions is costly and unsustainable.
 - A smarter way to utilize the TAs workforce will help create a more powerful system of exam synthesis.
- What is the solution?
 - A web-based System for managing and synthesizing exams
 - Intended to replace current offline system.

What already exists?

- The client, Mayer Goldberg, has developed a theory of meta-questions and their translation into multiple-choice questions.
- A scheme-based system was created to synthesize & generate multiple-choice and implement said theory.
- The existing system has now been in use for 6-7 years in a large number of courses.
- Current system's low accessibility is too hard for people without deep knowledge and understanding to use comfortably.

Customer's Vision

- The system is in serious need of redesign and reimplementation to support many additional functions.
- Have the system be web-based.
- Support various roles (for TAs, graders, instructors, etc)
- Support flexible content creation.
- Support flexible generation of exams.

Project Description

- Project's frontend+backend will be developed in JavaScript – to allow easy maintenance by the client/new developers.
- Intricate and intense DB work will allow maintenance of users, roles, and meta-questions.
- Features will include:
 - Maintenance of meta-questions per subject/course.
 - Maintenance of questions, possible answers, possible distractors.
 - Production of LaTeX documents for printable test files.
 - Production of statistics for questions based on test performance.
 - Role maintenance system that'll allow division of labor and tracking.

User Interface

- Describe the UI
- User Study

Project's Risk Assessment

Challenge	How to overcome? (Bonus)

Project's Environments and Languages

- Describe in which environments and programming languages the project will be developed?
- Should you learn? How will you learn?
- ..
- Elaborate as much as possible – but in short items

Evaluation and Testing Plan

- Describe which types of tests will be performed

Project's Steps and Timeline

- Use draw.io to describe a block diagram of the project steps, and in addition a chart of the timeline