MySurvey

MET CS473/673 Software Engineering
17 October 2013

REQUIREMENT ANALYSIS

USER STORIES: ITERATION #1

Register

As a survey creator, I should be able to register with MySurvey because I want to get access to the application.

REQUIREMENT ANALYSIS

USER STORIES: ITERATION #1

As a survey creator, I should be able to log in to the MySurvey website because I should be able to create, view and edit my surveys.

Log In

REQUIREMENT ANALYSIS

USER STORIES: ITERATION #1

Log Out

As a survey creator, I should be able to log out of the MySurvey website after I have logged in and finished using the application.

REQUIREMENT ANALYSIS

USER STORIES: ITERATION #1

Create Survey

As a survey-creator, I should be able to create different types of survey questions so that I can customize the survey to my particular business needs.

REQUIREMENT ANALYSIS

USER STORIES: ITERATION #1

As a survey creator, I should be able to delete any survey that I created so that I can keep the surveys I have on the site both current and relevant.

Delete Survey

REQUIREMENT ANALYSIS

USER STORIES: ITERATION #1

View List of Surveys

As a survey creator, I should be able to see all my surveys because I want to know what surveys I've created.

REQUIREMENT ANALYSIS

MINIMUM SET OF REQUIREMENTS

User Registration

- User Login
- Create Survey
- View Created Surveys
- Take Survey

REQUIREMENT ANALYSIS

NON-FUNCTIONAL REQUIREMENTS

Availability

- Response Time
- Privacy
- Data Backup
- Data Archival
- Security
- Browser Compatibility

CURRENT SOFTWARE ARCHITECTURE

LOGIN & REGISTRATION

Follows MVC architecture

- Controller and View are straightforward
  - Controller checks if the request is a ajax call or not, and calls the corresponding function
  - View shows the page to be rendered
- Model enforces rules that needs to be validated

• Password security

- Hash the password before storing in the database
- Uses storage and time efficient SH1 hashing algorithm

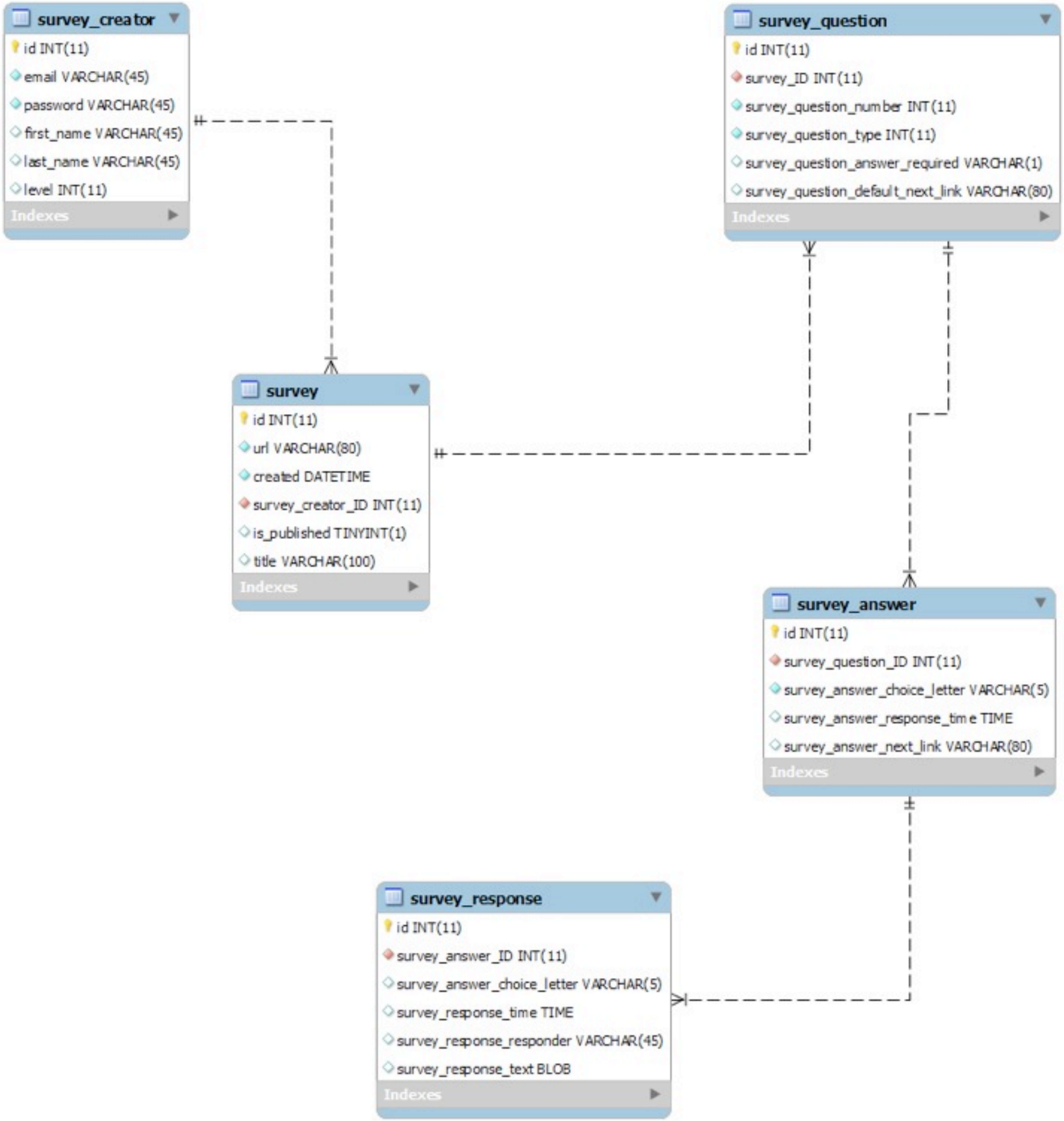
CURRENT SOFTWARE ARCHITECTURE

LOGIN & REGISTRATION RULES

- Login
  - Email column needs to match the correct format
- Register
  - Email column needs to match the correct format
  - Email must be unique within the database
  - Password minimum length must exceed 8 characters
  - Password retyped password must match
  - Email, password, retyped password is required, first name and last name can be empty

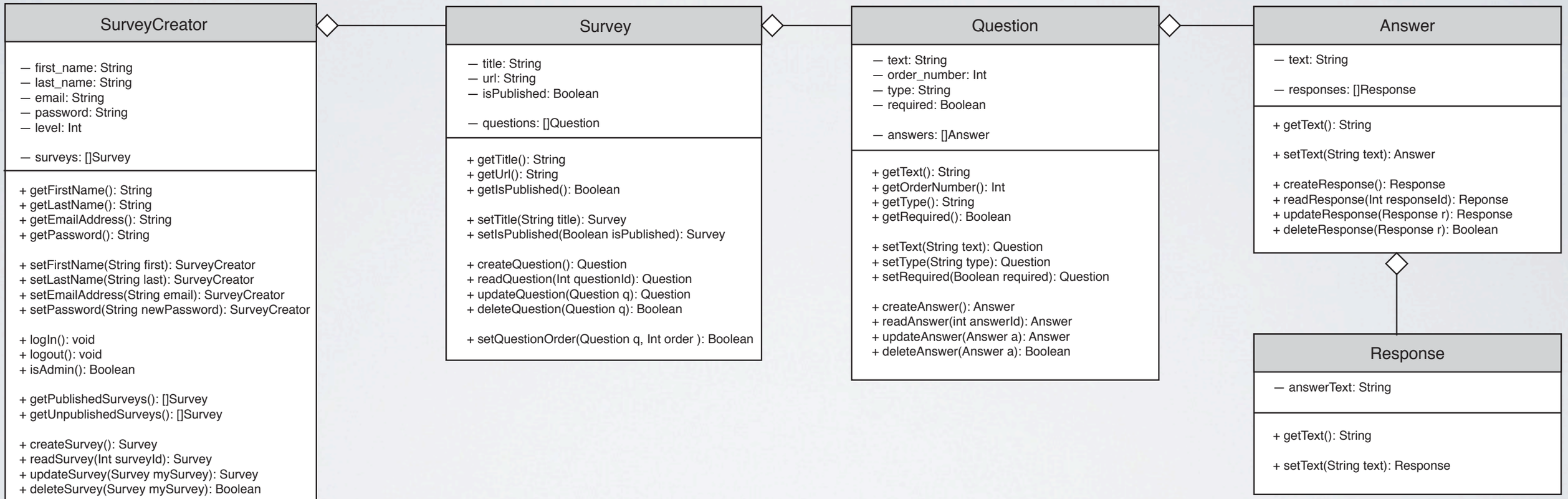
SOFTWARE DESIGN

DATABASE DESIGN


survey_creator
id INT(11)
email VARCHAR(45)
password VARCHAR(45)
first_name VARCHAR(45)
last_name VARCHAR(45)
level INT(11)
Indexes
survey_question
id INT(11)
survey_ID INT(11)
survey_question_number INT(11)
survey_question_type INT(11)
survey_question_answer_required VARCHAR(1)
survey_question_default_next_link VARCHAR(80)
Indexes
survey
id INT(11)
url VARCHAR(80)
created DATETIME
survey_creator_ID INT(11)
is_published TINYINT(1)
title VARCHAR(100)
Indexes
survey_answer
id INT(11)
survey_question_ID INT(11)
survey_answer_choice_letter VARCHAR(5)
survey_answer_response_time TIME
survey_answer_next_link VARCHAR(80)
Indexes
survey_response
id INT(11)
survey_answer_ID INT(11)
survey_answer_choice_letter VARCHAR(5)
survey_response_time TIME
survey_response_responder VARCHAR(45)
survey_response_text BLOB
Indexes

SOFTWARE DESIGN

CLASS DIAGRAM



MYSURVEY APPLICATION

IMPLEMENTATION

Tools used:

- **MAMP/XAMPP/AMPPS** to set up apache/php/mysql stacks

- **GitHub & Sourcetree** for version control & bug tracking

- **Pivitol Tracker** for tracking progress on user stories

- **Google+ hangouts**!

MYSURVEY APPLICATION

PROJECT DEMO

MYSURVEY APPLICATION

TESTING

- Iteration 1: Focused on unit testing
  - Development team was primarily involved
- Iteration 2: Start integration testing
  - Whole team will work on it

MYSURVEY APPLICATION

TESTING

- Unit testing tool
  - PHPUnit 3.7 + Yii framework support
- Unit testing scope: Iteration 1
  - Create, Update & Delete operations for the following tables:

    Survey Creator = Passed

    Survey = In progress

    Survey Response = Passed

    Survey Question = Passed

PROJECT MANAGEMENT

METRICS

6

User Stories
Completed

5

Bugs
Resolved

4

Open
Issues

PROJECT MANAGEMENT

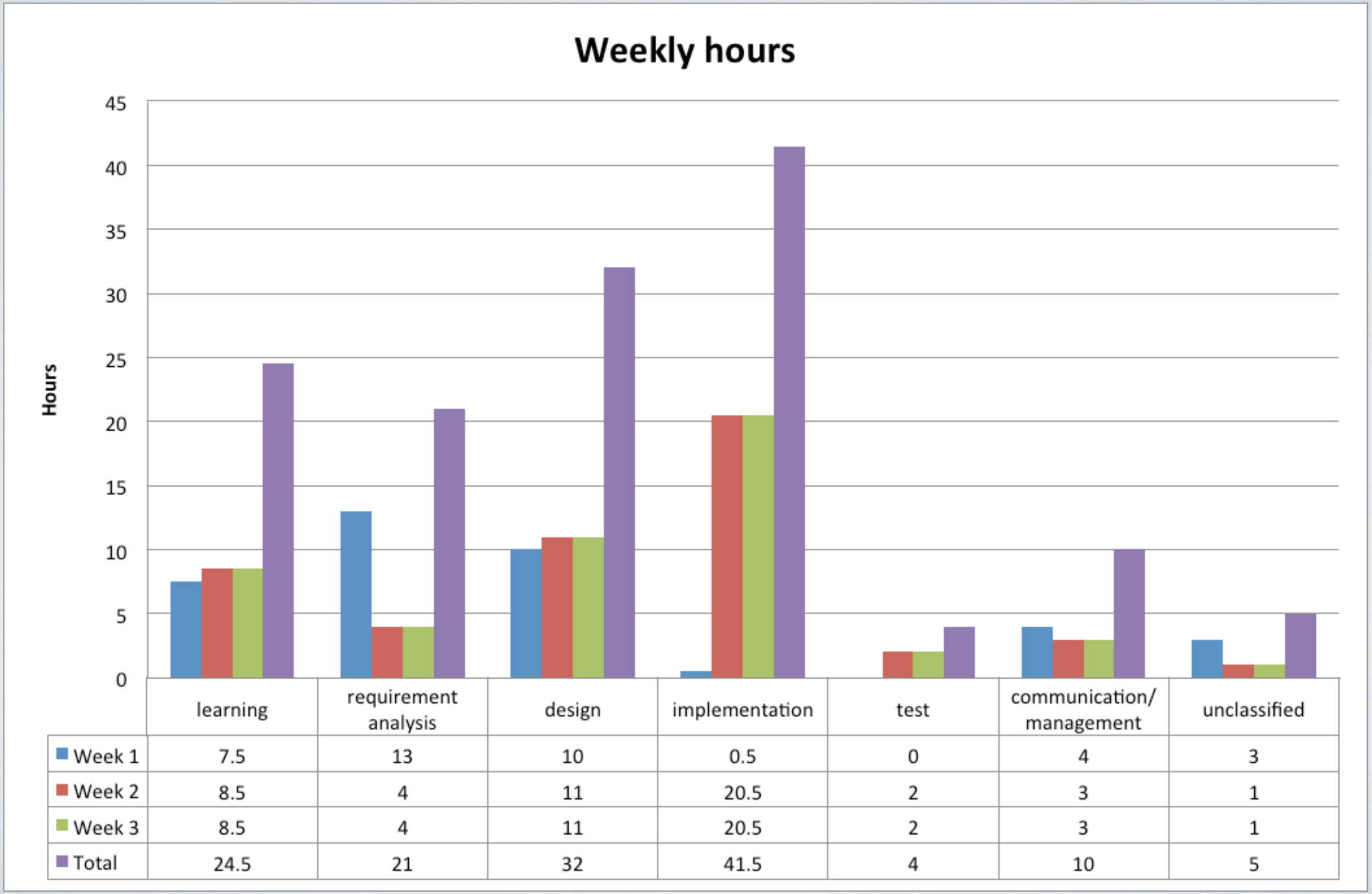
METRICS

6644

Lines of Code

PROJECT MANAGEMENT

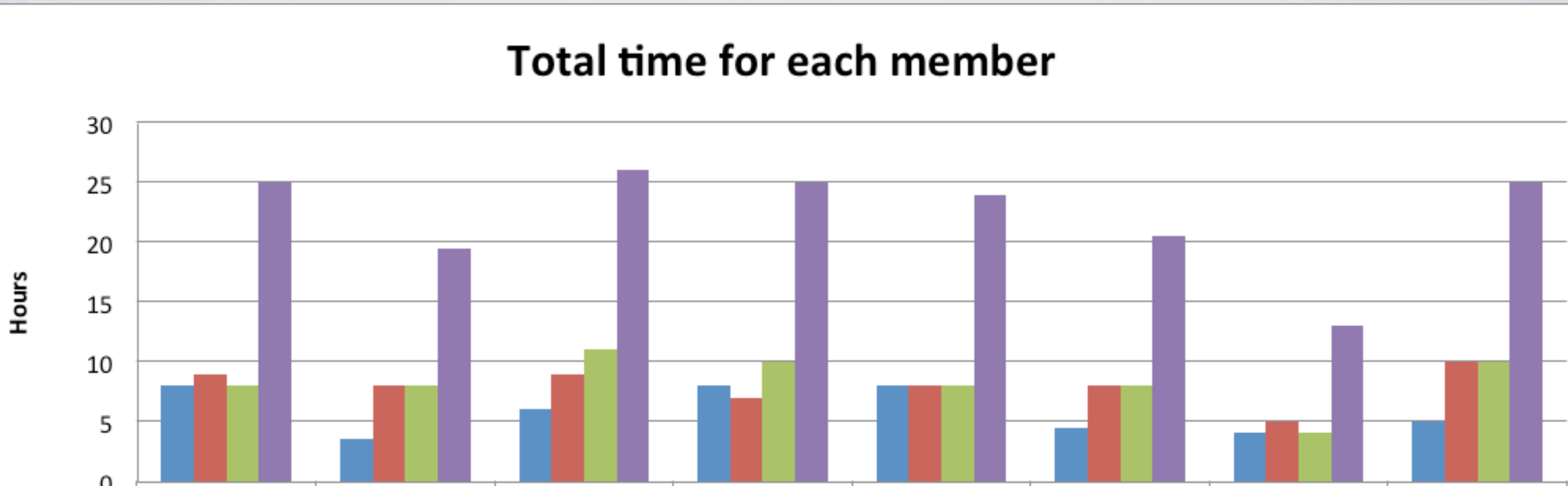
METRICS



	learning	requirement analysis	design	implementation	test	communication/ management	unclassified
Week 1	7.5	13	10	0.5	0	4	3
Week 2	8.5	4	11	20.5	2	3	1
Week 3	8.5	4	11	20.5	2	3	1
Total	24.5	21	32	41.5	4	10	5

PROJECT MANAGEMENT

METRICS



	Member 1	Member 2	Member 3	Member 4	Member 5	Member 6	Member 7	Member 8
Week 1	8	3.5	6	8	8	4.5	4	5
Week 2	9	8	9	7	8	8	5	10
Week 3	8	8	11	10	8	8	4	10
Total	25	19.5	26	25	24	20.5	13	25

MYSURVEY APPLICATION

CURRENT PROGRESS

- Database Design, Wireframes & Class Diagram
  - Started before the end of the first iteration; ongoing
- Create register, log in & log out functions
  - Programming & unit testing completed
- Create Survey: survey title, question & answer
  - Programming completed; unit testing ongoing
- Unit Testing Plan
  - Finished for the features in this iteration

MYSURVEY APPLICATION

LESSONS LEARNED

- Plan for support
  - Plan ahead for maintenance & issues along the way.
- Version consistency
  - Every team member should have the same version of the development tools.
- Testing
  - Start unit testing right away. Do not plan to go back & write the tests.
- Estimation
  - Every team member should participate in the estimation process.

MYSURVEY APPLICATION

FUTURE WORK: ITERATION 2

- Database Design, Wireframes & Class Diagram
  - Ongoing, will change as requirements change

- Requirements Review
  - Ongoing; may be refined as needed

- Provide more question types

MYSURVEY APPLICATION

FUTURE WORK: ITERATION 2

- Refine survey creation piece
  - Mark question as required
  - Set timer features on survey and on questions
  - Improve flow of survey and questions
- Create reports & question sequencing
- Testing & peer code review