

Full Stack Java Programming

AP Computer Science A

Spring Semester 2023 Revision 1, 2 Jan 2023

Standards Mastery Framework Project Sequence

Assignment Pathway

Track 1		
Assignment	Value	Due Date
College Board Review & Sprint 1		
0. Complete Unit 1 & 2 MCQ	Practice	12 Jan
1. Complete Units 3 & 4 MCQ	Practice	12 Jan
2. Complete Unit 5 MCQ	Practice	12 Jan
3. Submit Your Tasking Paper for Sprint 1	Minor	12 Jan
4. Submit Your Progress Report Sprint 1	Minor	19 Jan
5. Complete Unit 6 MCQ	Minor	19 Jan
6. Your programming submission for Sprint 1	Major	26 Jan
7. Complete Unit 7 MCQ	Minor	2 Feb
8. Complete Unit 8 MCQ	Minor	2 Feb
Sprint 2		
0. Submit Your Tasking Paper for Sprint 2	Practice	2 Feb
1. Complete Unit 9 MCQ	Minor	9 Feb
2. Establish working connection to skunkworks (Demo)	Minor	9 Feb
3. Sprint 2 Progress Check 1	Minor	9 Feb
4. Submit Your Progress Report Sprint 2	Minor	16 Feb
5. Sprint 2 Progress Check 2	Minor	16 Feb
6. Writeup on completion of Sprint 2	Minor	23 Feb
7. Sprint 2 Pacing and Completion Score	Minor	23 Feb
8. Sprint 2 Submission	Major	2 March
Sprint 3		
0 Submit Your Tasking Paper for Sprint 3	Practice	9 March
1 Sprint 3 Peer Review Paper	Practice	9 March
2 Sprint 3 Entry Code Review	Practice	9 March
3 Sprint 3 Run Checks Review	Minor	9 March
4 Complete Unit 10 MCQ	Minor	16 March
5 Sprint 3 Progress Check 1	Minor	16 March
6 Sprint 3 Test Run Checks	Minor	16 March
7 Sprint 3 Submission	Major	23 March
8 Group Grade Division Performance	Major	30 March
Master Projects		
0. Proposal	Minor	30 March
1. Code Grade	Major	4 May
2. Presentation	Major	4 May
Final Graded Event		
	TBA	TBA

*Or other periods as directed by the teacher

Each Section must flow **in order**. **Any section may be commenced early and in parallel.**

College Board Review & Sprint 1

Item	Language Track	Specifications
0	Complete Unit 1 & 2 MCQ	Scaled Score based on general performance/timeliness
1	Complete Units 3 & 4 MCQ	Scaled Score based on general performance/timeliness
2	Complete Unit 5 MCQ	Scaled Score based on general performance/timeliness
3	Submit Your Tasking Paper for Sprint 1	1-Page writeup on Your Coding Assignment for Sprint 1
4	Submit Your Progress Report Sprint 1	Form to fill out. Link will be provided.
5	Complete Unit 6 MCQ	Scaled Score based on general performance/timeliness
6	Your programming submission for Sprint 1	Submit all final Sprint turn-ins via Teams
7	Complete Unit 7 MCQ	Scaled Score based on general performance/timeliness
8	Complete Unit 8 MCQ	Scaled Score based on general performance/timeliness

Sprint 2

Item	GUI Track	Specifications
0	Submit Your Tasking Paper for Sprint 2	Details and comprehensive writeup determine grade as well as overall presentation (APA/No Coversheet)
1	Complete Unit 9 MCQ	Scaled Score based on general performance/timeliness
2	Establish working connection to skunkworks (Demo)	Demo to teacher you can connect to skunkworks table for your team's project
3	Sprint 2 Progress Check 1	Live demo
4	Submit Your Progress Report Sprint 2	Complete Sprint Writeup Form
5	Sprint 2 Progress Check 2	Live Demo
6	Writeup on completion of Sprint 2	Complete Sprint Completion Writeup Form
7	Sprint 2 Pacing and Completion Score	Score based on your contribution, timeliness and completion of all Sprint 2 assignment coding
8	Sprint 2 Submission	Code and Run-check grade

Advanced Cloud Db Operations		
Item	Database Track	Specifications
0	Submit Your Tasking Paper for Sprint 3	Complete Sprint 3 Assignment Form
1	Sprint 3 Peer Review Paper	Complete Sprint 3 Peer Review Form
2	Sprint 3 Entry Code Review	Live Code Review
3	Sprint 3 Run Checks Review	Live Demo
4	Complete Unit 10 MCQ	Scaled Score based on general performance/timeliness
5	Sprint 3 Progress Check 1	Live Demo
6	Sprint 3 Test Run Checks	Live Demo of Testing Performed
7	Sprint 3 Submission	Code and Run-check grade
8	Group Grade Division Performance	Division Grade based on targeted completion and functionality as a team

Master Projects

Once you are completely signed off for all three tracks, you can proceed to your master project proposals. Your master projects require a unique topic of interest to you. Common ideas will not score as well. This must be uniquely your own.

What you will submit as your proposal is a 1-page detailed **word-processed** proposal using the template at the end of this packet. Hand-written proposals **will not be accepted**.

April 11 th	Master Project Proposals Due
May 4 th	Master Projects Due

Specifications

This Master Project will receive **three** total grades: 1 minor, 2 major.

Item	Value
Proposal	Minor
Master Project Code	Major
Master Project Presentation	Major

The operative goal for the Spring semester is to achieve a very simple User Interface Java program with fundamental CRUD access into an SQLITE single table.

Master Project Alignments:

You are authorized to create master projects that EXTEND the group capabilities for your airline projects! Be creative and add additional capabilities with your individual code.

First-come, first-serve for ideas!

CODE Major Grade Required minimums (Major Grade Number 1):

- Must be OOP Java with operable UI w/Menu (UI Class is NOT main module)
- Help About Dialog
- Must connect to a database
- Must be connected to Skunkworks internal cloud (i.e., Lab Cloud)
- Must display data from the table

Meeting minimums achieves a grade of **70**.

Code Grade Enhancers: To achieve each tier, ALL of the lower tiers must be achieved.

To achieve an 80 or better, code must include the following minimums:

- Must include background imagery
- Must have a full working menu as shown in class (If not sure ASK)
- Must complete CRUD operations as directed by user in some manner

To achieve a 90 or better:

- Must have a class modeling the data used in transfer to/from the table (See example)
- Must have full CRUD operations (CREATE, READ, UPDATE, DELETE)
- Must accompany a proposal that scores above a 90

To achieve above a 95:

Your program must be comprehensively produced and show significant programmatic prowess. One of the biggest ways to guarantee this after meeting the 90% minimums, is to place your table on the lab cloud, and be able to connect remotely to it. This can be a copy of your table. Connection strings will be explained in class.

Presentation & Demonstration (Major Grade Number 2)

- Presentations will be done to the entire class
- This major grade will include all of the final elements:
- Professional Dress
- Comprehensive DEMO
- Demo functions properly
- Presentation clarity (Do you stay on point and relevant to the demo of your software)
- Demonstration of why this is meaningful to you beyond mere statement of such
- 2 words per slide rule adherence

Code Point Deductions

- Multiple Page PDF submissions
- File format not PDF (other than PDF except for required imagery)
- Non scannable code results in a zero until resubmitted. If late, school board deductions in effect
- Incorrect Order of submission (Classes, Main, Schemas, Run/Images)
- Missing submissions
- Poorly documented code
- Non-meaningful code
- Non-Working Code
- Late code in accordance with school board policy at all deadlines
- Default Recovery by definition is to submit in accordance with this document unless otherwise directed

AP Computer Science - A

[Replace this text with your full name]

Period: [1 or 3]

Master Project Proposal

Date Submitted: [DD Month-Spelled-Out YY]

What I am managing or tracking

[1-2pp]

Why this is meaningful to me

[1-2pp]

Attestation: By signing below I attest that I will write my own code. I will only allow others to help me understand my errors or generically perform a single specific task. All my code will be uniquely my own. My database queries and GUI construction will all be my own. I am aware that all code submissions will be digitally scanned for similarities and any source codes I submit will be in a scannable colorized PDF to Microsoft Teams. I fully understand that this project is a major assessment, and that plagiarism will result in disciplinary action.

Date Signed

You may either add a digital signature or type your full name. By typing your full name, you are attesting the above acknowledgements.