Republic of the Philippines
Department of Science and Technology
PHILIPPINE SCIENCE HIGH SCHOOL
EASTERN VISAYAS CAMPUS
Pawing, Palo, Leyte

Integrity • Excellence • Service to Nation

PROJECT PLAN

NAME OF TEACHER:	DACHEL P. RAAGAS		
SUBJECT:	CS-2	GRADE LEVEL:	8
SCHOOL YEAR:	2025-2026	QUARTER:	3

TITLE OF PROJECT:

Initial Development and Core Feature Implementation

BRIEF DESCRIPTION:

Students will begin coding their application, focusing on building the core features and main functionality of the project.

They will set up the development environment, implement the application's architecture and logic, and ensure key use cases are functioning.

Code must be version-controlled using GitHub, and basic testing/debugging should be part of the workflow.

Minimal revisions to the documentation may also be made at this stage to reflect changes in planned features, file structure, or updated technologies used.

LEARNING OBJECTIVES ADDRESSED:
(Please refer to your Syllabus/Curriculum Guide)

LESSON	LEARNING OBJECTIVES
Study Guide 1: Array	1. Define what an array is and explain its role in representing and organizing lists of related data; 2. Demonstrate how to declare, initialize, and manipulate arrays using appropriate syntax in various/selected programming languages; 3. Access, modify, and process array elements using indexing, loops, and conditional logic to solve real-world list-based problems; 4. Apply common operators and built-in array methods/functions—such as length checking, sorting, searching, adding, or removing elements—to manage data effectively; and

	5. Create a functional mini-system that utilizes arrays for input storage, processing, and display of connected information.
Study Guide 2: Multi-dimensional Array	1. By the end of the lesson, students will be able to create a 2D array to show simple information (like temperatures, scores, or population) from a website or online table. 2. Given a dataset in an array, students will write a short code to find the highest, lowest, and average values, with at least 3 correct results. 3. In a 30-minute activity, students will finish a code that summarizes a dataset using arrays and shows at least three correct answers (like sum, max, or average). 4. By the end of the week, students will submit a mini-project where they extract a simple dataset from an online source, store it in a 2D array, and generate summary statistics, demonstrating proper array implementation and correct results.
Study Guide 4: Basic to Compound Data Representation	1. Define basic object data types (list, dictionary, class). 2. Create an object data type from a prototype or class. 3. Use operators and methods to work with these data types. 4. Design a simple user interface to capture and display structured information.
Study Guide 8: Iterative Structures	1. Identify problems that require iterative structures as a solution. 2. Create iterative structures using Python code to solve problems. 3. Differentiate the different iterative structures and how each one works best for specific types of problems. 4. Represent a dataset as an object data type inside a code. 5. Summarize an object dataset based on the code requirements to extract needed information
Study Guide 5: Control Structures	1. Identify and apply basic operations of Python dictionaries, including creating, accessing, updating, and deleting key-value pairs. 2. Use loop structures to access and display each key-value pair in a dictionary to better understand and navigate datasets. 3. Solve simple real-world problems by organizing, summarizing, and analyzing information using dictionaries and appropriate loop structures.

SCHEDULES:

Weeks 1–2: Set up development environment; revisit proposal and documentation
Week 3: Begin core feature implementation; focus on main functionality
Week 4: Continue development; revise proposal sections and update GitHub repository
Week 5: Complete most core features; begin writing the detailed methodology section
Week 6: Finalize progress monitoring sheet and updated documentation; continue minor feature development
Week 7: Submit updated documentation, methodology section, GitHub repository, and monitoring sheet (deadline)

EXPECTED OUTPUT:

Quarter 3 Required Submissions or Expectations

Progress Monitoring Sheet
A structured template (e.g., weekly or bi-weekly) where students log their coding progress, challenges encountered, solutions applied, and features completed. This helps track effort, development pace, and debugging approaches.

Updated Project Documentation
Minimal but necessary revisions to the original proposal documentation:
- Updated feature list (reflecting any additions or removals)
- Revised file/function structure
- Any new technologies or tools introduced
- Use of APA-style referencing for any sources used

Detailed Methodology Section
- this can change in the fourth quarter. An added section in the documentation describing:
    - How core features were implemented
    - Technologies used (with justification)
    - Backend–frontend communication (if applicable)
    - Key design decisions or trade-offs
    - Reference to ethical considerations in programming choices (e.g., user privacy, accessibility)

Annotated GitHub Repository
- Organized file structure
- Descriptive commit messages
- Branch usage (if applied)
- Updated README (with installation instructions and current progress status)

Programming and Computing Ethics
As part of the documentation, students must briefly reflect on programming and computing ethics. This includes respecting intellectual property, giving credit to open-source code

properly, considering accessibility and inclusion in UI design, and protecting user privacy. Reflections may be supported by citations from the ACM Code of Ethics or related sources

RUBRICS:

25% Progress Monitoring Sheet (Complete, detailed, and regularly updated (at least 5 entries))
25% Updated Documentation. Accurate revisions, proper APA referencing
30% Detailed Methodology (Clear explanation of implementation, justified tech choices, ethical reflection included
20% GitHub Organization (Organized structure, good commit practices, updated README)
100% TOTAL

ESTIMATED BUDGET (Please give details of the budget):

ITEM	QTY	UNIT COST	TOTAL COST
Documentation per pair/indiv	1 set	0.00	0.00
TOTAL COST			0.00

MAXIMUM COST PER STUDENT: NO COST

NUMBER OF STUDENTS INVOLVED IN ONE OUTPUT: INDIVIDUAL/PAIR/MERGED

TIME OF PREPARATION REQUIRED (in days): 7 weeks/35 days

DUE DATE: February 3, 2026 (Camia) , February 4, 2026 (Jasmine & Sampaguita)

Prepared by:

DACHEL P. RAAGAS
Teacher

Recommending Approval:

CARY VON U. ALANO
Unit Head

Approved by:

LESLIE C. CRUTO
CID Chief