App Development Scoring Criteria

Technical Design		
Middle School	**High School**	**Scoring Criteria**
✔	✔	**Code Will Be Easy to Understand** • The code will be **well-organized**, with similar blocks grouped together logically. • If a block of code is used more than once, it will be made into a **procedure** (a custom block that saves time and keeps code neat). • If a section might be **confusing**, the team will add **comments** to explain what it does. **Example:** • A **procedure** is created called updateDressColor that updates the color of the dress. • A **comment** says: // This block checks if the user's answer is right, then adds points and shows a message. • All global variables like globalAnswer have clear, meaningful names.

✔	✔	**Code Will Use a Variety of Features**
		
		The app will include **at least five or more** of the following coding tools, and they will **all work correctly**:
		
		• **If / Then** – runs something only when a condition is true.
		• **If / Then / Else** – does one thing if the condition is true, something else if it's false.
		• **And / Or / Not** – combines or reverses logic rules.
		• **Math functions** – for adding, subtracting, comparing, or calculating values.
		• **Lists** – stores multiple pieces of information (like names, scores, tasks).
		• **Event triggers** – the app responds when something happens, like:
		   o When a button is clicked
		   o When the screen opens
		   o When a value changes
		• **Notifiers** – pop-up messages that show tips, errors, or updates.
		
		Example:
		
		• In a quiz game app:
		   o The app may use **If/Then** to check if the answer is correct.
		   o **Math functions** to calculate and update the score.
		   o A **List** stores all the questions.
		   o A **Notifier** pops up to say "Correct!" or "Try again."

		○ A **When Button Clicked** block starts the next question. **These features work together to make the app run smoothly and interact with the user.**
✔	✔	**Code Will Have Good Naming** • Variables and screen elements (like buttons or labels) will have names that show what they do. • The names will follow a clear and consistent pattern. • The team won't use default names like "**Label1**" or "**Variable1**." Instead, they will use names that make sense. **Example of a Clear Naming System** **Type**　**Bad (Default/Unclear)**　**Good (Clear & Descriptive)** Button　Button1　　　　　　　submitBtn or submitButton
✔	✔	**Code Will Have Helpful Comments** • The team will add **comments** to explain parts of the code that might be confusing or hard to understand. • These comments will help other people (like judges or teammates) understand what the code is doing and **why** it's there. • There will be **at least five helpful comments** throughout the code.
✔	✔	**Global Variables Will Be Well Made** • All **global variables** will be created **at the start** of the program (in the "initialize" section). • Their **names will be clear**, easy to understand, and will match what they are used for. **Example of a good global variables:** • globalNum1 – stores the player's first number. • globalNum2 – stores the player's first number. • globalLevel – tracks what level the user is on in the app.
✔	✔	**App Will Include Helpful Error Messages** • The app will show **error messages** when something goes wrong. • These messages will help the user understand **what happened** and **how to fix it**. **Example of a Helpful Error Message:** • "Error" → (Too vague) • "Please enter a username and password before logging in." • "That username already exists. Try a different one." • "You must fill in all fields before continuing."

Middle School	High School	Scoring Criteria
✓	✓	**The App's Purpose Will Be Clear** • The app will have a **clear purpose** that is easy to understand. • Users will know what the app is for **just by using it** — either from **simple instructions** or **intuitive navigation**. **Example of Clear Instructions or Navigation:** • A **welcome screen** that says: "This app helps you track your homework and deadlines." • **Navigation buttons** like: **Home, Tasks, Add New**, and **Settings.**

General Features Checklist		
Middle School	**High School**	**Scoring Criteria**
✓	✓	**The App's Identity Will Be Clear to Users** • The app will have a **title** that shows what the app does. • The app will also have an **icon** that matches the theme or purpose of the app. **Example**: See the "**Helpful Video: How to Add a Title & App Icon**" we provided for step-by-step instructions. • **Title:** "Dog Lover" • **Icon:** A picture of a dog
✓	✓	**The Login Screen Will Work As Intended** • The app will only allow users to log in using a **unique username and password**. • Users will not be able to log in unless their information is already saved in the system. **Example:** 1. You try to log in as "Emily" with password "mcwt" → ✗ Error: user doesn't exist. 2. You click **Sign Up** and create the account. 3. You log out and try to sign up again with the same username → ✗ Error: "Username already exists." 4. You log in with the correct credentials → ☑ You're in!
	✓	**Login Info Will Be Stored in the Cloud (Not Global Variables)** • The app will save **usernames and passwords in CloudDB** (or another cloud database). • This way, **multiple users** can use the app from different devices and keep their data. **Example:** • Emily signs up and logs in on her tablet.

Middle School	High School	
		• Later, she logs in with the same username on her phone — and all her progress is still there!
✔	✔	**The App Will Have a Navigation Menu and Work Well** • There will be a **menu or buttons** that help users move from screen to screen. • The navigation will work properly on **all screens**. **Example:** • A **menu icon** opens up with buttons like: Home, My Progress, Settings, and Log Out. • Tapping one takes you directly to that screen without issues.
✔		**The App Will Have At Least 3 Screens That Are Relevant** • The app will include **at least three screens**, and one of them will be a **login screen**. • All screens will be **important to the purpose** of the app (no random or extra screens). **Example:** 1. **Login Screen** – where users sign in or sign up 2. **Tasks Screen** – where users add/view what they need to do (Note: Notifications or pop-up alerts do not count as a screen.)
	✔	**The App Will Have At Least 4 Screens That Are Relevant** • The app will include **at least four screens**, and one of them will be a **login screen**. • All screens will be **important to the purpose** of the app (no random or extra screens). **Example:** 1. **Login Screen** – where users sign in or sign up 2. **Home Screen** – shows welcome message or main features 3. **Tasks Screen** – where users add/view what they need to do (Note: Notifications or pop-up alerts do not count as a screen.)
✔	✔	**The App Will Have Correct Spelling and Grammar** • All text in the app will be **free from spelling and grammar mistakes**. • **Buttons, instructions, labels, and messages** will be clear and correct.

App User Interface UI		
Middle School	**High School**	**Scoring Criteria**

✔	✔	The Layout of The User Interface (UI) Components Will Match the Purpose of Each Screen. **The UI is everything the user sees and interacts with on the screen.** • The layout on each screen will be designed to **fit what that screen is supposed to do**. • UI components like **buttons**, **text boxes**, **images**, **labels**, and **menus** will be placed in a way that's **easy to understand and use**. • Every UI component will have a **clear job** and will help users do something important in the app. **Example:** The UI should be easy to understand, simple words, and pictures that show users what to do, so people don't get confused." • A **back or menu button** to return to the main screen
		UI Layout Will Be Logical and Consistent • The app layout will have a **balanced mix of space, text, and graphics**. • UI elements (like buttons, images, text boxes) will be placed in a way that **makes sense and looks clean**. • Every screen will follow the same **style and organization**, so the app feels smooth and not random. **Example:** • All screens use the same **layout structure**: title at the top, content in the middle, and a back/home button at the bottom. • Screens are not crowded—there's **enough space** between items, and nothing feels squished.
✔	✔	**Colors, Fonts, and Sizes Will Match Across Screens** • The app will use **matching colors, font styles, and font sizes** across all screens. • Text will be **easy to read**, and there will be **good contrast** between text and background. • The app will not use **default backgrounds** (like plain gray) — colors will be **chosen to match the app's theme**. **Example:** • A health app uses soft color for a calm feel. Fonts are large and readable. Buttons look the same on every screen.
✔	✔	**Graphics Will Be Relevant and Attractive**

Middle School	High School	Scoring Criteria
		• All images or icons will support the app's purpose and won't just be decorative. • Graphics will be **visually appealing**, **memorable**, and **custom-made or carefully chosen**. • They will improve the app instead of distracting from it. **Example:** • A recycling app may use a recycling bin.
✔	✔	**The App Will Be Easy to Use Without Help** • The app will be easy to use with **no outside help**. • Screens will connect in a **logical order**, and users will always know where they are and what to do. • Users will not feel lost or confused while using the app. **Example:** • A **menu button** may be available on every screen to help users go back or move forward.
✔	✔	**The App Will Be Visually Pleasing and Well Designed** • The app will look **better than expected**—clean, organized, and fun or professional depending on the goal. • Users will enjoy using it and feel like it was **carefully designed** just for them. **Example:** • A mental health check-in app may use soft colors and calming images.

Cumulative Tracker		
Middle School	**High School**	**Scoring Criteria**

	✔	**The App Will Include a Cumulative Tracker That Works Properly**
		
		• The app will have a **scoreboard, ranking list, progress tracker, achievement board, or status board**.
		• The tracker will:
		   ○ **Show scores or progress clearly**.
		   ○ **Update correctly** when something changes (like a score or level).
		   ○ **Save the score or progress** even after the user logs out and logs back in again.
		• Judges will test the app by:
		   ○ Getting a score/ranking/progress/achievement/status etc.
		   ○ Logging out.
		   ○ Logging back in to check that your score was saved.
		
		Example:
		
		• There is a screen that shows the **highest score**.

Middle School	High School	Scoring Criteria
		• After logging out and back in, the user's progress is still there.
Overall Originality and Creativity of the App.		
Middle School	**High School**	**Scoring Criteria**
✓	✓	**The App Will Follow the Theme: "Tech for Good"** • The app will have a clear **purpose** that connects to **helping others, solving problems**, or **improving life** at home, school, or in the community. • It will **make a positive impact** using technology in a meaningful way. **Example:** • An app that helps people find where to buy food.
✓	✓	**The App Will Leave a Strong Overall Impression** • The app will be **easy to use**, with no confusion, bugs, or unnecessary steps. • It will feel **complete and polished**, not rushed or unfinished. • Reviewers will feel like the app is **designed for real users** and is something they'd actually want to use. **Example:** • A calming app to help manage stress. The navigation is smooth, and the app feels relaxing and helpful.
✓	✓	**The App Will Be Original and Creative** • The app will show a **clever idea or unique approach**. • It won't just copy popular apps — it will stand out with **new features or cool designs**. • The creativity will make it **fun, exciting**, or **thought-provoking**. **Example:** • A **"Happy Pup Challenge" dog food app** that gives kids daily, dog-related task like "Help feed your dog," It's original, fun, and encourages real-world care for pets.
✓	✓	**The App Will Have Correct Spelling and Grammar** • All text in the app will be **free from spelling and grammar mistakes**.

		Buttons, instructions, labels, and messages will be clear and correct.