

Duck	
<p>Maintain its name, gender, level, XP, hunger, thirst, and mood</p> <p>Respond to user actions like feeding, giving water, and playing</p> <p>Display animations and visual changes based on interactions.</p> <p>Level up when XP reaches a threshold</p> <p>Duck grows and evolves gaining a certain level.</p>	<p>GameManager (Handles interactions)</p> <p>UIManager* Updates the display)</p> <p>StorageManager (Saves and loads duck data)</p> <p>CustomizationManger(changes appearance and look of duck)</p>

Game Manager	
<p>Control game logic(e.g. hunger and thirst decrease over time)</p> <p>Process user inputs (e.g., feeding, playing)</p> <p>Handle XP gain and level-up logic</p> <p>Unlock achievements</p>	<p>Duck (Updates the pet's stats)</p> <p>UIManger (Updates the UI)</p> <p>AchievementManger (Tracks Milestones)</p>

UI Manager	
<p>Render duck stats and animations</p> <p>Update XP, hunger, thirst, and level displays</p> <p>Manage settings and modal interactions</p> <p>Display achievements when unlocked</p> <p>Render task list</p> <p>Display filter options (All, Active, Completed)</p> <p>Provide an interface for adding/editing tasks.</p> <p>Update task stats and XP level.</p>	<p>GameManager (Receives updates)</p> <p>Duck (Displays status)</p> <p>TaskManager (Fetches and updates tasks)</p> <p>Task (Displays individual tasks)</p> <p>XPManager (Updates progress bar based on task completion)</p>

Storage Manager	
<p>Save and load duck stats using LocalStorage</p> <p>Retrieve stored progress when the game starts</p> <p>Store achievements and preferences</p> <p>Saves and retrieve tasks from Local Storage</p> <p>Persist user preferences and XP progress</p> <p>Load saved tasks when the app starts</p> <p>Store coins used to pay for cosmetics</p> <p>Stores cosmetics that user have already bought</p>	<p>GameManager(Handles save/load logic)</p> <p>UIMaanger (Loads settings on startup)</p> <p>TaskManager (Manages tasks)</p> <p>XPManager (Stores XP progress)</p>

Task	
<p>Store task details (title, priority, completion status, due date and time)</p> <p>Toggle completion status</p> <p>Provide information for rendering in UI</p>	<p>TaskManager (Manages task operations)</p> <p>UIManger(Displays tasks)</p> <p>Calendar(Updates the due date to calendar)</p>

Task Manager	
<p>Add, remove, and edit tasks</p> <p>Toggle task completion</p> <p>Save and load tasks from LocalStorage</p>	<p>TaskManager (Manages task operations)</p> <p>UIManager (Displays tasks)</p> <p>Task (Handles individual task data)</p> <p>UIManager(Updates UI based on task operations)</p> <p>StorageManager (Persists tasks)</p> <p>Calendar (Obtains dates as options)</p>

XPManager	
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Track XP level based on completed tasks Update and display XP progress bar. Unlock achievements.	TaskManager (Earns XP from task completion) UIManager (Displays XP progress) AchievementManager (Unlocks rewards)
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Achievement Manager	
Track and unlock task-based achievements Display notifications for new achievements Store unlocked achievements.	XPManger (Triggers achievements based on XP milestones) UIManager (Displays achievements)

Calendar	
Track due dates of tasks Display a full calendar of the month of the year Display indication of current day Display tasks on days where their due date is placed on.	UIManager (Displays calendar) TaskManager (Gets a date to input) Task (adds due date for specified task to calendar) Task Manager (inputs a date for when task should be completed before)

Customization Manager	
Contains a shop feature where duck can have cosmetics (hats, colour, clothes, etc.) Coins are used to pay for cosmetics Display wide range of cosmetics Option to change appearance of Duck	UIManager (Displays shop and cosmetics) Duck (Changes appearance of Duck) Storage Manager (stores bought cosmetics)