

Project1 - Fur Friend

Problem Description:

Many people **hesitate** to **adopt** real **pets** due to various **constraints** such as uncertainty about their **ability** to **care** for a **pet**, **space limitations**, **financial concerns**, or **parental restrictions**. Additionally, **individuals** **dealing** with **loneliness** or those who cannot have a pet due to **lifestyle** constraints often **seek** **companionship**. Fur Friend provides an interactive and engaging **solution** by **allowing** **users** to adopt and care for a digital pet, **simulating** real pet ownership responsibilities.

Issues:

1. **Skepticism About Pet Ownership:** Some individuals are unsure if they are **capable** of **handling** the **responsibilities** of a real pet and need a way to **test** their **commitment**.
2. **Parental Restrictions:** **Parents** may **hesitate** to **allow** **kids** to **own** pets, **fearing** a lack of responsibility. A virtual pet simulator can **serve** as a **testbed**.
3. **Lack of Space or Resources:** Many users **live** in **apartments** or **places** where **keeping** pets is not feasible. A virtual pet provides **companionship** without logistical challenges.
4. **Emotional Support Needs:** Some individuals **seek** companionship to **combat** **loneliness** but are unable to adopt a real pet.

Rules:

- Users should be able to **adopt** a pet by **selecting** a species and naming it.
- Users must **care** for their pet by **feeding**, **playing**, and ensuring its **well-being**.
- A status **dashboard** should **display** **pet stats**, including **hunger**, **happiness**, **energy**, and **health**.
- Pets should **exhibit** **behavioral changes** based on how well they are cared for.
- Users should be able to feed the pet with different **food types** that **impact** its **health** and **energy**.
- Users should be able to **play** with their pet through various activities that **boost** **happiness** but **consume** **energy**.
- Pets should require **rest** to **restore** **energy**.
- If **neglected** for too long, the pet's health should **decline**, **leading** to **sickness**.
- A pet's **age** and **growth** should be **simulated** over time based on **interactions** and **care levels**.
- Users should be able to **track** their **pet's progress**.
- The pet should **react** to user **inputs** in a **lifelike manner**.
- Users should be able to **restart** or **adopt** a **new pet** if their **current pet** **reaches** the **end** of its **lifecycle**.

Nouns:

- Pets
- Constraint
- Space Limitations
- Financial Concerns
- Parental Restriction
- Individuals
- Lifestyle
- Companionship
- Solution
- Users
- Responsibilities
- Commitment
- Parents
- Kids
- Testbed
- Resources
- Apartment
- Places
- Emotional Support
- Loneliness
- Well Being
- Dashboard
- Pet Stats
- Hunger
- Happiness
- Energy
- Health
- Behavioral changes
- Food Types
- Sickness
- Age
- Growth
- Interactions
- Care Levels
- Pets Progress
- Inputs
- Lifelike Manner
- New Pet
- Current Pet
- Lifecycle
- Ability

Verbs:

- Hesitate
- Adopt
- Care
- Dealing
- Seek
- Allowing
- Simulating
- Capable
- Handling
- Test
- Hesitate
- Own
- Fearing
- Serve
- Live
- Keeping
- Combat
- Selecting
- Feeding
- Playing
- Display
- Exhibit
- Impact
- Boost
- Consume
- Rest
- Restore
- Neglected
- Decline
- Leading
- Track
- React
- Restart
- Reach
- End

Target Audience

1. Individuals Skeptical About Pet Ownership

- People unsure if they can handle the responsibilities of a real pet.
- Those who want to test their commitment before adopting a real pet.

2. Parents with Hesitations

- Parents who are reluctant to allow kids to have pets.
- Families that want to evaluate a child's responsibility through a virtual pet.

3. Individuals with Space or Financial Constraints

- People living in apartments or rented spaces with pet restrictions.
- Individuals who cannot afford real pet expenses such as food, vet care, and accessories.

4. People Seeking Emotional Support or Companionship

- Those dealing with loneliness and looking for a sense of connection.
- Individuals who want a pet-like experience but cannot adopt due to lifestyle constraints (frequent travel, allergies, etc.).

5. Gaming Enthusiasts & Digital Pet Lovers

- People who enjoy simulation games and interactive experiences.
- Users who have engaged with virtual pet games in the past and want an upgraded, immersive experience.

6. Children and Teens

- Younger users interested in nurturing and playing with a virtual pet.
- Kids who want to experience pet care in a fun, engaging way.

7. Elderly Individuals

- Seniors looking for companionship in a digital form.
- Those who may not have the ability to care for a real pet but still want an interactive experience.

Challenge Questions:

1. Would you like a reward system (unlockable accessories, toys, achievements)?
2. How should the pet's growth be handled? Should it age over time or based on care frequency?
3. Should the pet be able to "pass away" if neglected for too long, or should it always be recoverable?
4. Would you like the ability to interact with other users' pets (visits, playdates, competitions)?
5. What specific actions do you expect to perform (feeding, playing, grooming, medical care)?
6. What types of pets would you like to adopt (dogs, cats, exotic animals, fantasy creatures)?

Summary of Classes, Attributes and Associations

1. Class: User

Attributes:

- user_id (Unique identifier)
- name
- age
- email
- pets_owned (List of pets adopted)
- preferences (Notification settings, pet preferences)

Methods:

- adoptPet(species, name)
- feedPet(pet, food_type)
- playWithPet(pet, activity)
- trackPetProgress(pet)
- cuddlePet(pet)
- shareThoughts(pet, thought)
- restartGame()

Associations:

- One User can adopt multiple Pet objects.
- Is managed by one GameManager
- Is assigned one PetManager

2. Class: Pet

Attributes:

- pet_id (Unique identifier)
- name
- species
- Age
- owner
- status

Methods:

- play()
- rest()
- grow()

- cuddle()
- updateStatus()
- shareThoughts(thoughts)

Associations:

- A Pet **belongs to** one User.
- A Pet is **managed by** petManager

3. Class: PetStatus

Attributes:

- health
- happiness
- hunger
- energy
- last_update

Methods:

- updateStatus(activity)
- decreaseHunger()
- increaseFatigue()
- applyHealthDecay()

Associations:

- A Pet **can have** only 1 PetStatus.

4. Class: Interaction

Attributes:

Methods:

- play(pet)
- feed(pet)
- cuddle(pet)
- rest(pet)
- shareThought(pet, thoughts)

Associations:

- An InteractionHandler **updates** PetStatus.

6. Class: PetManager

Attributes:

- availablePets : List of pets

Methods:

- getAvailablePets()
- adoptPet(user, species, name)

Associations:

- A User can adopt a pet using PetManager.

7. Class: GameManager

Attributes:

- users : List of users
- activePets : List of pets
- gameTime
-

Methods:

- startGame()
- saveGame(User)
- loadGame(user: User)
- updatePetStatus()
- getRandomAffirmation()

Associations:

- A User can play the game using Game Manager.

User Personas and User Stories

User Persona 1: Sarah, The Busy Bee

- **Age:** 28
- **Occupation:** Marketing Specialist
- **Tech Savviness:** Average, enjoys using mobile apps

- **Motivation:** Sarah loves animals but can't have a real pet due to her job's travel requirements. She seeks companionship and a sense of responsibility without the commitment of a real pet.

User Stories for Sarah:

1. **As Sarah**, I want to be able to adopt a virtual pet so that I can experience the joy of having a pet without the real-world responsibilities.
2. **As Sarah**, I want my pet's stats to reflect its well-being, so I can monitor its hunger, happiness, energy, and health.
3. **As Sarah**, I want to interact with my pet through feeding and playing so I can boost its happiness and energy, making it feel alive and cared for.

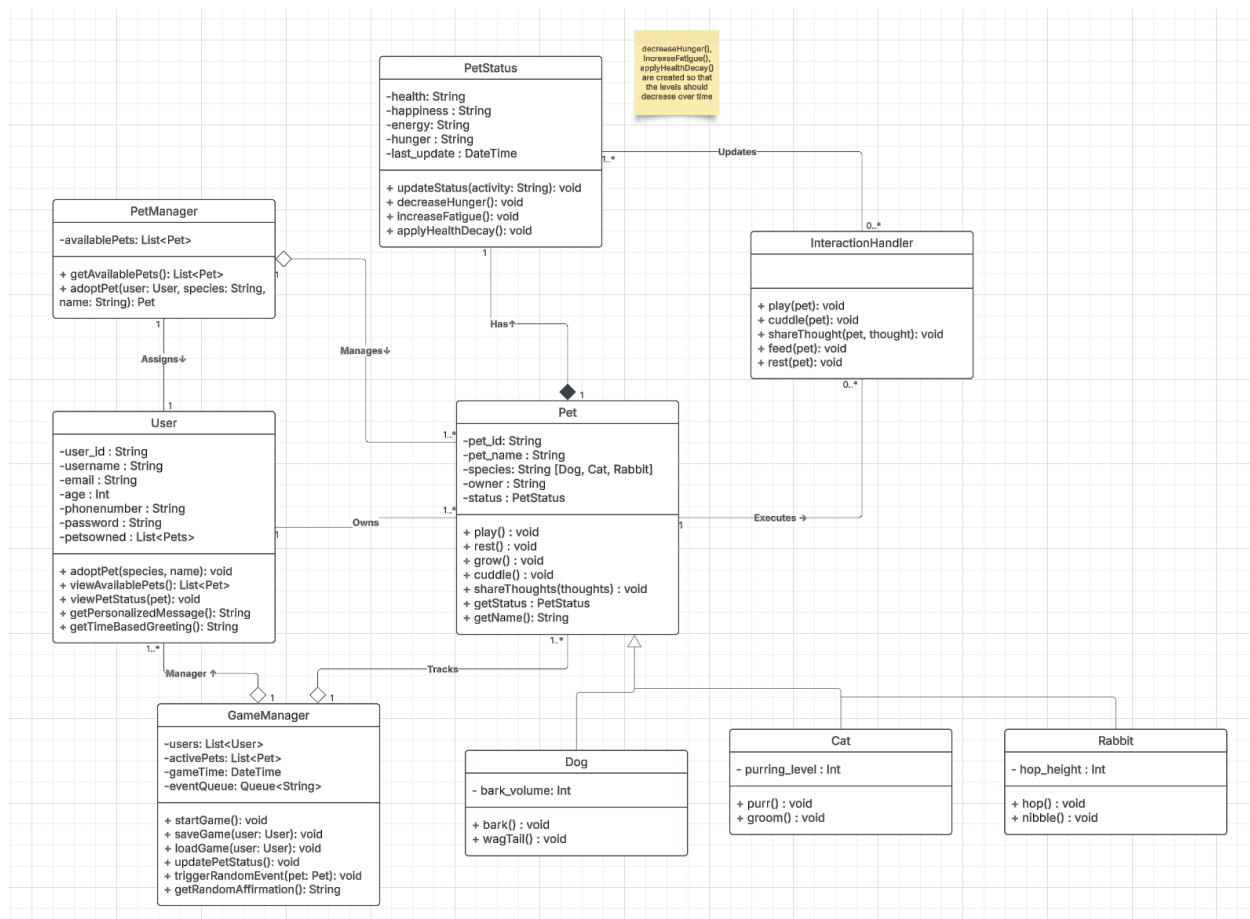
User Persona 2: David, The Retired Widower Seeking Emotional Support

- **Age:** 60
- **Occupation:** Retired Engineer
- **Tech Savviness:** Low to Moderate, uses a tablet for reading, messaging, and entertainment
- **Motivation:** David lost his spouse a few years ago and often feels lonely at home. His children live far away, and he misses the sense of companionship that a pet could provide. However, due to **mobility issues and health concerns**, he cannot care for a real pet. A **virtual pet** offers him a way to experience companionship, routine, and emotional connection without the physical effort required for real pet ownership.

User Stories for Jake:

1. **As David**, I want my virtual pet to greet me warmly whenever I log in, so that I feel a sense of companionship and routine in my daily life.
2. **As David**, I want to interact with my pet in simple ways (like feeding, talking to it, or petting) so that I can feel emotionally connected without complex controls.
3. **As David**, I want my pet to remind me to check in and take care of it, so that I feel a sense of responsibility and purpose each day.

UML Class Diagram:




[Lucid Chart Link](#)


Low Fidelity Mockup


[Link](#)

Users should be able to login or sign up using Facebook, Google or Apple accounts.




Login







[Forgot Password?](#)




Busy Bee user story 1: Should be able to adopt a pet

Adopt


Adopt Your Virtual Pet

Choose your companion




Dog

Loyal and Playful



Cat

Independent and Curious



Rabbit

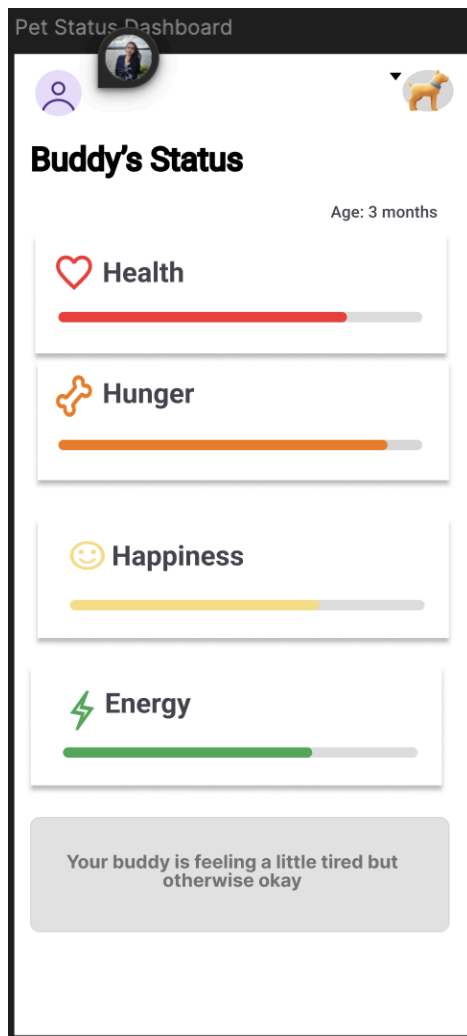
Gentle and Sweet

Name your Pet

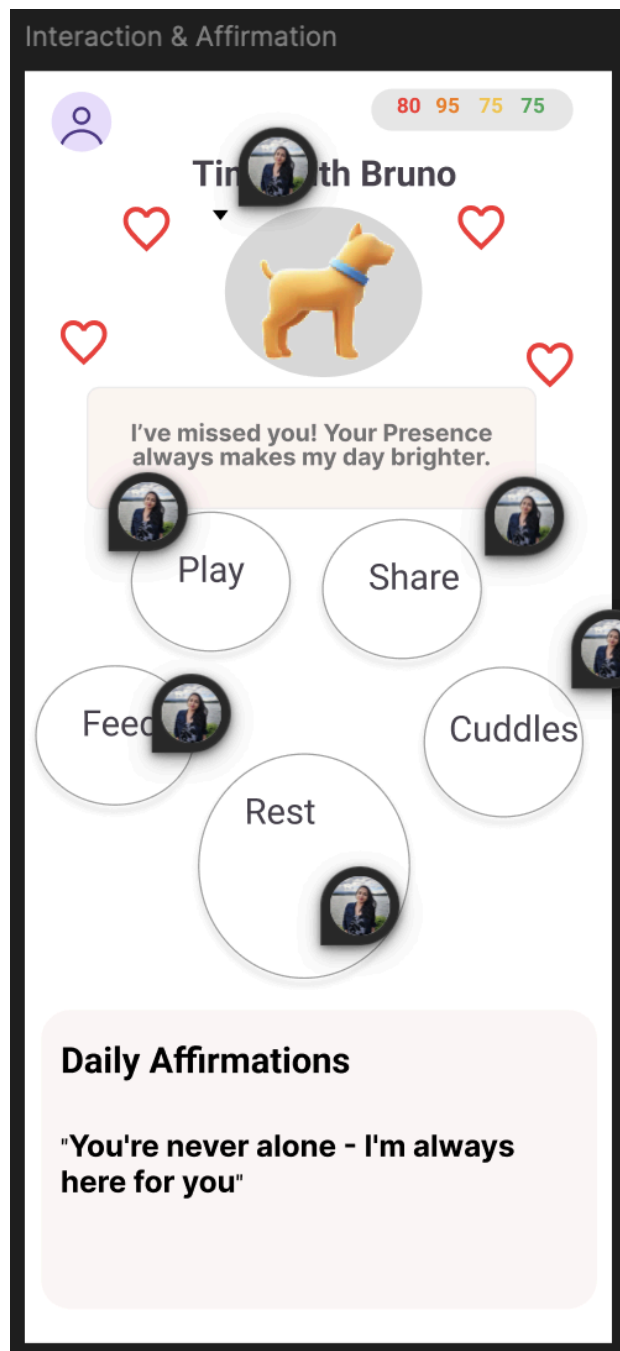
Enter the name

Adopt Now!

Busy Bee User story too: Should be able to monitor pet status
Widower user story 3: Notify



Busy Bee user story 3: Interaction with Pet
Widower user story 1: Personalised message
Widower user story 2: Interact with Pet



AI Usage

Prompt : These are my mockups can I improve anything in this ?

Type : Chatgpt 4

Response:

1. Login Screen

✅ **What works well:** Simple layout, clear input fields, and social login options.

♦ **Suggestions:**

- The "Forgot Password?" link could be slightly larger or placed closer to the password field for better accessibility.
- The login button could be a bit more prominent by increasing its size or adding a slight gradient.

2. Adoption Screen

✅ **What works well:** The pet selection is clear with icons and descriptions.

♦ **Suggestions:**

- The pet selection boxes could be visually enhanced (e.g., soft shadows or subtle background colors).
- Consider adding a tooltip or small pop-up that gives more details when hovering over a pet.
- The "Meet your Fur Friend" button could be more engaging, e.g., **"Adopt Now!"**

3. Pet Status Dashboard

✅ **What works well:** Simple and effective use of status bars.

♦ **Suggestions:**

- Instead of plain bars, consider adding **small icons** (e.g., a heart next to Health, a food bowl next to Hunger).
- You could animate the bars filling up when stats change for a more dynamic feel.
- Display a pet's **mood** using an emoji or small illustration (e.g., if health is low, the pet could look sad).

4. Interaction & Affirmation Screen

✅ **What works well:** Good user engagement with interactive options.

♦ **Suggestions:**

- The action buttons (Play, Feed, Rest) could have **icons** for quicker visual recognition.
- The speech bubble could be slightly larger or styled differently (rounded corners, soft shadows).

- Daily affirmations could have **background color variations** or a rotating set of messages for freshness.

Would you like me to create an updated design mockup with these suggestions? 😊

Action : I modified 'Meet your Furry Friend' to 'Adopt Now'

Prompt : Does my document have all this ? Business Requirements Nouns-verbs Target audience Rules Challenge Questions Summary of Classes, Attributes and Associations (from nouns and verbs) User personas (at least 2) and user stories (at least 3 per persona) Interface low level mockups (at least one interface per user story) UML Class Diagram Uses connection types: associations, aggregations/composition and generalization






Type : Chatgpt 4

Result : Chatgpt did not read my document properly. It highlighted of not existing while my document did contain the mentioned section.

Response:

I'll now assess your document based on the required sections you listed. Here's the evaluation:

Requirement	Present?	Comments
Business Requirements	✓	Clearly outlined with objectives, target audience, and value proposition.
Nouns-verbs (Identifying Classes & Methods)	✓	Covered in the class summary and description of interactions (e.g., User adopts Pet, PetStatus updates).
Target Audience	✓	Well-defined, including pet lovers, parents, and individuals with constraints preventing real pet ownership.
Rules	⚠	Some implicit rules exist (e.g., pet needs care, stats decrease over time), but more formalized rules (e.g., "A pet cannot be left unfed for more than X hours") would strengthen the section.
Challenge Questions	✗	Not explicitly found. Consider adding scenario-based questions such as "What happens if a user does not interact with their pet for 48 hours?"
Summary of Classes, Attributes, and Associations	✓	Well-structured with Pet, User, PetStatus, and GameManager classes.

User Personas (At least 2)		Some user personas are implied but not explicitly written. Try detailing at least two personas with motivations and behaviors.
User Stories (At least 3 per persona)		Scenarios like adopting, playing, and feeding are included, but ensure they follow a formal "As a [user], I want to [action] so that [reason]" structure.
Interface Low-Level Mockups (At least one per user story)		Provided through your wireframes/mockups.
UML Class Diagram		Not found in the document. You need a UML diagram showing classes, attributes, and relationships.
Uses Connection Types (Associations, Aggregations, Generalization)		Some associations are evident (e.g., User → owns → Pet), but aggregation (e.g., PetStatus as part of Pet) and generalization (e.g., different pet types inheriting from a base Pet class) should be made explicit.

Final Grade & Recommendations

- Current Score: ~7/10
- Improvements Needed:
 1. Formalize Rules: List detailed game mechanics.
 2. Challenge Questions: Include critical "What if?" scenarios.
 3. User Personas & Stories: Explicitly define at least two personas and format user stories.
 4. UML Diagram: Create a class diagram showing relationships between entities.
 5. Explicitly Show Aggregation & Generalization: Improve class relationships.

Would you like help drafting any of these missing sections?
