**Game Design Document (1st draft)**

**Title Page**

**Game Name**: Pawstacle Dash  
**High Concept**: Navigate the chaos of urban life as a dog owner trying to walk an energetic dog through bustling city streets, avoiding obstacles and keeping the dog happy.

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**Section I - Game Overview**

**1.1 Game Concept**

Pawstacle Dash is a top-down, action-packed game that combines humor with skill-based gameplay. Players control a dog owner tasked with guiding their dog through chaotic city streets, avoiding dynamic obstacles while managing the dog's unpredictable behavior.

**1.2 Design History**

This is the initial draft of the GDD. As development progresses, this document will evolve to reflect changes in design, mechanics, and features.

**1.3 Feature Set**

* Dynamic dog behavior mechanics.
* Varied urban obstacles and environmental hazards.
* Power-ups like treats and tennis balls.
* A scoring system based on speed, obstacle avoidance, and dog happiness.
* Multiple neighborhoods with distinct challenges.

**1.4 Genre**

Top-down action/obstacle navigation.

**1.5 Target Audience**

* Casual gamers.
* Dog lovers and families.
* Fans of lighthearted, skill-based games.

**1.6 Game Flow Summary**

The player progresses through increasingly challenging levels by successfully navigating city streets, avoiding hazards, and managing the dog's happiness level.

**1.7 Look and Feel**

* **Visual Style**: Vibrant, animated 2D cityscapes with detailed environments and playful character animations.
* **Audio**: Energetic music, humorous sound effects, and environmental noises like barking and traffic.

**1.8 Project Scope**

* **Number of Locations**: 5 neighborhoods.
* **Number of Levels**: 15 (3 per neighborhood).
* **Number of NPCs**: 10+ types (pedestrians, cyclists, street performers, etc.).
* **Number of Power-Ups**: 3 (dog treats, tennis balls, calming sprays).

**Section II - Gameplay and Mechanics**

**2.1 Gameplay**

* **Game Progression**: Players unlock new neighborhoods by completing objectives and earning points.
* **Objectives**: Navigate the level, avoid obstacles, and maintain the dog's happiness.

**2.2 Mechanics**

* **Physics**: Realistic leash physics to simulate tugging and pulling.
* **Movement**: Player controls the dog owner, while the dog's movements are semi-autonomous.
* **Actions**:
  + **Calm the Dog**: Use treats to reduce excitement.
  + **Distract Hazards**: Throw tennis balls to distract the dog or NPCs.
  + **Avoid Obstacles**: Navigate around pedestrians, cars, and other hazards.

**2.3 Screen Flow**

* **Main Menu**: Start game, options, exit.
* **Gameplay Screen**: HUD showing dog happiness, walk distance, and score.
* **Pause Screen**: Resume, restart, quit.

**2.4 Game Options**

Adjust audio settings, difficulty levels, and control sensitivity.

**2.5 Replaying and Saving**

* Automatic saving at the end of each level.
* Level select for replaying completed levels.

**2.6 Cheats and Easter Eggs**

* Unlockable costumes for the dog and owner.
* Hidden collectibles in levels.

**Section III - Story, Setting, and Character**

**3.1 Story and Narrative**

* **Backstory**: The player is a dedicated dog owner navigating the challenges of city life.
* **Narrative Tone**: Lighthearted and comedic.

**3.2 Game World**

* **Neighborhoods**: Downtown, Suburbs, Park, Night Market, Waterfront.

**3.3 Characters**

* **Player**: The dog owner (customizable appearance).
* **Dog**: Energetic and mischievous.
* **NPCs**: Cyclists, pedestrians, street performers, and more.

**Section IV - Levels**

**Level Examples**

1. **Downtown Chaos**: Navigate rush hour traffic.
2. **Park Trails**: Avoid squirrels and mud puddles.
3. **Night Market**: Dodge vendors and shoppers.

**Section V - Interface**

* **HUD**: Dog happiness bar, walk distance, score.
* **Menus**: Clear and accessible.
* **Camera**: Top-down view.

**Section VI - Artificial Intelligence**

* **Dog AI**: Semi-autonomous behavior with random tugs and distractions.
* **NPC AI**: Dynamic movement patterns.

**Section VII - Technical**

* **Engine**: Built using C++ and SFML.
* **Target Hardware**: PC and potentially other platforms like mobile.

**Section VIII - Game Art**

* **Concept Art**: Rough sketches of neighborhoods and characters.
* **Style Guide**: Bright and cartoony.
* **Environments**: Detailed and lively cityscapes.