



Available on the
App Store



Spot the Scammer:

An iOS Game for Digital Safety Education



Executive Summary

In today's digital age, scams are becoming increasingly sophisticated, leveraging emerging technologies like artificial intelligence to target individuals across different demographics. In 2023, Americans lost over \$10 billion to scams, a 20% increase from the previous year (Federal Trade Commission, 2023). Additionally, 42% of scam victims are aged 55 and older (Pew Research Center, 2022), and people from low-income households are twice as likely to fall for phishing scams (Harvard University, 2023). These statistics underscore the app's mission to educate underserved and at-risk populations.

This growing threat leaves individuals—young and old—vulnerable to financial losses, breaches of personal information, and emotional distress. To combat this, we developed an iOS app, **Spot the Scammer**, to educate and empower users to identify and avoid scams effectively.

Introduction

PURPOSE OF THE APP

As scams become increasingly sophisticated with AI and other advanced technologies, the need for engaging educational tools has never been more urgent. Current resources are often monotonous, outdated, and primarily targeted toward older demographics, leaving many vulnerable groups unprepared. Spot the Scammer addresses this gap by offering a gamified learning experience designed for all ages, helping users recognize and avoid scams relevant to their demographic—from video game currency scams and predator awareness to fake job offers and crypto fraud.

SUPPORTING STATISTICS

The urgency of this issue is underscored by the 2023 FTC report, which revealed that Americans lost over \$10 billion to scams, a 20% increase from the previous year. Additionally, Pew Research (2022) found that 42% of scam victims are aged 55 and older, while a 2023 Harvard study highlighted that individuals from low-income households are twice as likely to fall for phishing scams. By making scam awareness interactive and accessible, Spot the Scammer equips users with the knowledge they need to protect themselves in an increasingly deceptive digital world.



Americans lost over \$10 billion to scams



42% of scam victims are aged 55 and older



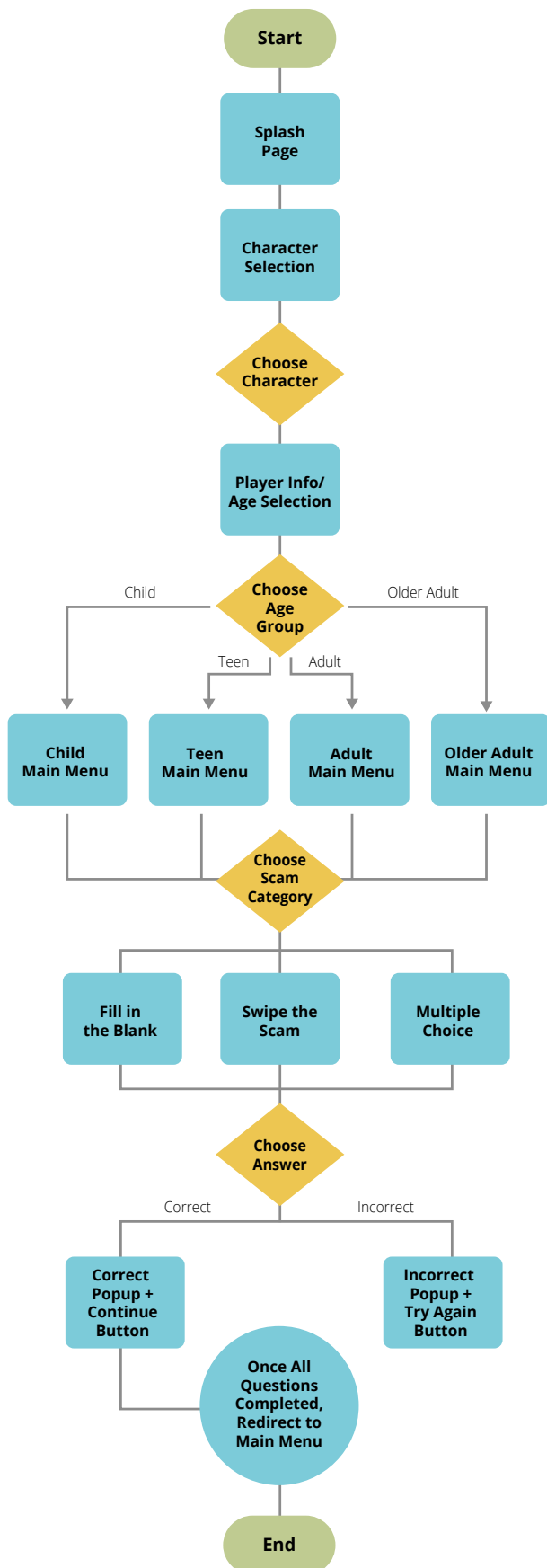
Low-income households twice as likely to fall for phishing scams

GOALS

Spot the Scammer aims to serve a broad audience by tailoring its content to different age groups and their specific vulnerabilities. For children, the app focuses on gaming and school-related scams, while teens learn to recognize threats like social media scams and fraudulent online shopping schemes. Adults receive guidance on identifying job scams and phishing attacks across various platforms, and older adults are educated on healthcare-related scams and tech support fraud. By addressing the unique risks faced by each demographic, Spot the Scammer ensures that users of all ages gain the knowledge they need to stay safe.

Given the overwhelming impact of scams on victims, Spot the Scammer aims to empower people with the awareness and education needed to protect themselves. By combining purpose and audience, the app provides a gamified and engaging learning experience, delivering tailored content for diverse demographics while equipping users with practical skills to identify and prevent scams.

App Overview



Features

Character Selection

- Users choose avatars representing diverse races, body types, disabilities, ages and genders
- Each avatar reacts dynamically based on quiz performance

Age Groups

- Scenarios tailored to specific age demographics
- Players can switch age groups to explore a variety of scams

Game Types:

- **Multiple Choice:** User has four options, one correct answer
- **Fill in the Blank:** Users type the answer with optional hints
- **Scam or Real:** Analyze images and decide if they depict a scam
- With all game types, they are presented with a blurb explaining why that is the correct answer, adding to their understanding of the scenario

Persistent Data

- The backend data with all the content is locally stored on the device, allowing players to enjoy Spot the Scammer without the need for internet connection
- The user's progress and completed questions are also stored locally, so there is no issue with repeating already answered questions

Audio Based Questions

- Phone calls are one of the main delivery systems for scams, so we have audio based questions where the user answers referencing the audio of a phone call scam

Technical Stack

- **Engine:** Unity 2D, written in C#
- **Backend:** CSV content files with JSON-based persistent data
- **iOS-Specific Features:** iOS Input System, Xcode Build Settings
- **Tools:** Universal Render Pipeline (URP), Adobe Illustrator
- **Platform:** This app is built for iOS, iPhones and iPads

Development Process

1

Requirements Gathering:

Met with stakeholders to define goals and audience needs. The app was designed for offline access and simplified language to accommodate low digital literacy. To appeal to a broad audience, the design balanced a child-friendly yet mature aesthetic.

2

Gameplay Proposal Walkthrough:

Presented a paper prototype outlining player flow and question types. Stakeholder feedback emphasized learning moments, positive reinforcement, and image associations to enhance engagement.

3

Wireframes & Design:

Created initial wireframes and refined them in Figma, incorporating stakeholder preferences for color schemes and UI elements to ensure a cohesive design.

4

Initial Prototype:

Developed a basic Unity2D prototype with placeholder assets, receiving positive stakeholder feedback. Suggestions from mobile games were incorporated to enhance gameplay.

5

Designer Meeting:

Worked with designer Ron Carranza to improve UI/UX. Provided sample screens and prototypes to align on vision, leading to updated wireframes with a refined color palette and cohesive assets.

6

Iterative Development:

Features were developed incrementally, tested on devices, and reviewed with stakeholders for feedback. This approach minimized rework and ensured continuous improvement.

7

TestFlight Deployment:

Released the MVP for team testing, allowing early bug identification and incremental feature approval.

Screenshots



TEAM



Mihir Gupta
Lead Developer and
Product Owner



Ron Carranza
Lead
Designer



Frank Liu
Mentor and
Manager



Erin Carr-Jordan
Director and
CEO of IDIA

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