**Project Name:** PaperFi

**User Story - Researcher**

**1. User Persona**

* **Name:** Jose Fernando Soares
* **Role:** Researcher
* **Goal:** Publish scientific papers, monetize and get academic recognition

**2. User Story**

* As a researcher, I want to publish papers on a decentralized platform so that I can immediately make it available for the scientific community without waiting for a journal approval.
* As a researcher, I want to have the option to monetize the paper and therefore be able to list it for sale.
* As a researcher, I want to know if my paper was peer reviewed and the result.
* As a researcher, I want recognition for my work.

**3. Acceptance Criteria**

* **Functionality:**
  + The platform should allow researchers to input paper details (title, abstract, price, etc.) and upload the paper in a PDF format.
  + The platform should create a user doc and a paper doc to track all the information.
  + The platform should encrypt the PDF url so no one has access to it without paying.
  + The platform should create NFT Badges and allow the researchers to mint the NFTs when certain achievements are met.
* **Attributes:**
  + The user doc should track the data regarding the user and his actions.
  + The paper doc should track all the data regarding the paper submitted and all the interactions with the doc.
  + The NFTs should have attributes referring to the achievement unlocked and are frozen in the user vault.
* **User Interaction:**
  + Researchers should be able to create, update, list and delist their paper easily through the platform's UI.
  + Researchers should be able to mint their badges.

**4. Priority**

* High

**5. Technical Notes**

* **Dependencies:**
  + This story requires the creation of PDA accounts to store data, vaults to store SPL tokens/lamports and NFTs.
  + This story requires NFT integration for the badges.
  + This story requires a system to track user actions and paper doc interactions.
* **Considerations:**
  + Ensure metadata integrity and compatibility with querying mechanisms.
  + Ensure compliance with data privacy regulations
  + The platform needs a storage solution that is fast, safe and low cost to save the papers PDF.

**User Story Buyer**

**1. User Persona**

* **Name:** Angela Bagio
* **Role:** PhD Student
* **Goal:** Purchase and access academic papers relevant to her field of interest.

**2. User Story**

* As an individual buyer, I want to browse and purchase listed papers so that I can access academic research seamlessly.
* As a buyer I want to be able to query papers using dates, fields, key words and other filters.
* As a buyer I want to get access to the paper metrics.
* As a buyer I want to know if the case is already reviewed and who did the review.

**3. Acceptance Criteria**

* **Functionality:**
  + The platform should allow buyers to browse the papers and make purchases
* **Attributes:**
  + The papers should display their metadata such as title, authors, abstract and revision.
  + The paper should display a button for buyers to be able to purchase it.
* **User Interaction:**
  + Buyers should be able to search, filter, and purchase papers through an intuitive interface.

**4. Priority**

* High

**5. Technical Notes**

* **Dependencies:**
  + Search and filter features.
  + Transaction management by anchor.
* **Considerations:**
  + Ensure payment is secure
  + Ensure the PDF url is decrypted after purchase

**User Story Peer Reviewer**

**1. User Persona**

* **Name:** Dr. John Doe
* **Role:** Senior Researcher
* **Goal:** Review papers, provide constructive feedback to improve research quality and to obtain acknowledgment from the scientific community.

**2. User Story**

* As a peer reviewer, I want to submit reviews for papers so that I can help improve their credibility and earn recognition.
* As a peer reviewer, I want free access to the paper I am going to review as part of the work compensation.

**3. Acceptance Criteria**

* **Functionality:**
  + The platform should allow for reviewers to download the paper.
  + Reviewers should only be allowed to review one paper at a time.
  + The platform should allow reviewers to submit the review.
  + The platform should update the paper doc and create a review doc.
  + The platform should create NFT Badges and allow the reviewers to mint the NFTs when certain achievements are met.
* **Attributes:**
  + Reviews should be tied to papers and publicly displayed once completed.
  + The NFTs should have attributes referring to the achievement unlocked and are frozen in the user vault.
* **User Interaction:**
  + Reviewers should be able to filter listed papers waiting for review.
  + Reviewers should be able to set notifications on, to receive alerts when a new paper of a given field or researcher is listed for review.
  + Reviewers should be able to mint their badges.

**4. Priority**

* Medium

**5. Technical Notes**

* **Dependencies:**
  + This story requires a system to edit Paper Docs in anchor.
  + This story requires a filter feature.
  + This story requires a notification system.
  + This story requires a Database to store reviews
* **Considerations:**
  + Reviewers should not be able to abuse the free download. Possibly the best approach is to charge for the download and refund after the review is submitted.

**User Story Admin**

**1. User Persona**

* **Name:** John McAfee
* **Role:** Admin
* **Goal:** Ensure smooth operation and to be able to withdraw funds.

**2. User Story**

* A**s** an Admin, I want to be able to check the platform metrics so that I can stay on top of the platform performance and security.
* As an Admin, I want to be able to withdraw funds from the vault.

**3. Acceptance Criteria**

* **Functionality:**
  + The platform should allow operators to access user, paper and review docs.
  + The platform should allow reviewing platform analytics.
  + The platform should allow wallet management.
* **Attributes:**
  + Dashboards with transaction logs and user activity.
* **User Interaction:**
  + Admins should be able to send funds to their personal wallet.
  + Admnins should be able to access different types of analytics.

**4. Priority**

* Low

**5. Technical Notes**

* **Dependencies:**
  + Data analysis tools and Admin panel
  + Ticket Tool
  + Transfering funds system in anchor
* **Considerations:**
  + Ensure data security and comply with privacy regulations

**Prioritization Summary**

**MVP Features:**

* Submit research paper (researcher)
* Browse and purchase papers (buyer)
* Secure storage and listing querying (researcher/reviewers)

**Important Features**

* Peer Review mechanism (reviewer)
* Fund Withdrawal (researcher and admin)

**Future Iterations**

* NFT badges for achievements (researcher/reviewers)
* Subscription and tiered access models (institutional users)