

# Take home assignment - purchase

**Objective:** Build an NFT marketplace app that allows users to see real-time pricing of NFTs from on-chain data, convert the native token price to USD in real-time, use Stripe API to purchase NFTs, and keep a record of the purchase in a database of your choice.

## Note:

- To keep things simple, assume the app has a wallet and the wallet already holds the NFT to be purchased. After payment is made, simply transfer the nft to the buyer's wallet.
- Due to the complexity of the app, feel free to focus on implementing the transactional logic, UI styling and design can be downprioritised

## Bonus:

- If you feel adventurous feel free to implement the actual purchase flow, definitely bonus point for achieving that
- Host the application in any cloud provider of your choosing (***If app is not hosted, be ready to discuss how you would host it and ensure scalability and performance of the app.***)

## Technology Stack:

- Next.js
- TailwindCSS
- Node.js
- Feel free to choose the blockchain of your choice
- Stripe API (Test environment with test card)
- Database of your choosing (preferably postgresql)

## Requirements:

1. Display NFT information
  - Users should be able to see the details of the NFT such as name, image, description, and other relevant information.
2. Real-time pricing
  - The app should display the real-time pricing of NFTs from on-chain data.
  - The pricing should be updated in real-time as changes occur on the blockchain.
3. USD conversion
  - The app should be able to convert the native token price of the NFT to USD in real-time.
  - The conversion rate should also be updated in real-time.
4. Stripe API Integration
  - The app should use the Stripe API (test environment, test card) to allow users to purchase NFTs.
  - The purchase flow should be seamless and easy to use.
  - The user should be able to enter their payment information and complete the transaction within the app.
5. Record keeping
  - The app should keep a record of the purchase the database. (You may decide the database and schema)

- The record should include details such as the NFT purchased, the purchase price, and the user who made the purchase.
- 6. Listing status
  - The app should update the listing status of the NFT to "sold" once the purchase has been completed.
  - The purchase price should also be displayed on the NFT's listing page.
- 7. Result
  - 0. Should expect to see the NFT be transferred to the buyer's address

## Deliverables

- A link to the source code hosted on a public repository, such as GitHub
- Documentation (in [README.md](#)) that explains how to run the application locally (including any necessary steps to set up the database), thought process/steps you took to complete this assignment, as well as any challenges you encountered along the way and potentially how you overcame them

## Evaluation Criteria

- Overall logic and execution of the purchase flow
- Code quality, which includes readability, maintainability, and organization
- The user experience of the application

## Timeframe

The candidate has **1 week** to complete the assignment and submit the deliverables.