



# PCBee

Presented by Team Lorem Ipsum



# Overview




- PC Builder website with help from AI (GPT) and eBay API.
  - Pick PC Parts and see the total cost of the build.
  - Ask an AI to help build PCs and teach about PC hardware.
- Name come from bees, symbolizing agility and speed.





# Overview Cont.

- Two main sections:
    - Education AI chatbot (powered by GPT API)
      - Provides assistance in deciding PC specs
      - Make a PC build for you
      - Provides guidance in PC assembly
    - Part picker (assisted by eBay API)
      - Allow users to search components
      - Displays seller reputation and similar items
      - Allows users to save parts and add them to a cart
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# Tech stack, API, and SDLC

## Stack

- Vanilla HTML: Standard
- CSS/Bootstrap: Easy to learn, aesthetically pleasing
- Node.js: Environment runtime for JS to run as the back-end.
- Render: To deploy the server and its required back-end.



## API

- eBay: Items, prices, related items, seller information
- GPT: Incorporate educational AI, generate suggestions for computer parts.




## SDLC

- Kanban: Flexible, visualize workflow
- Extreme Programming: Pair programming





# Application Features

- eBay:
    - PC part Searching:
      - We will use eBay's API to search for items and see their details.
    - Related items:
      - We use eBay's search result to display similar items.
    - Seller information:
      - We also display the seller's information.
  - GPT API:
    - Educational for explaining PC parts:
      - The GPT chatbot can explain each PC part to help clear any confusion.
    - Builds a PC for you:
      - The GPT chatbot can also give builds with a specified feature (budget, range, etc.)
    - How to build a PC:
      - The GPT chatbot can help guide users on how to put parts together when building a PC.
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# CI/CD Infrastructure

```
name: Node.js CI

on:
  push:
    branches: [ "main" ]
  pull_request:
    branches: [ "main" ]

jobs:
  build:

    runs-on: ubuntu-latest

    strategy:
      matrix:
        node-version: [20.x]
        # See supported Node.js release schedule at https://nodejs.org/en/about/releases/

    steps:
      - uses: actions/checkout@v3
      - name: Use Node.js ${{ matrix.node-version }}
        uses: actions/setup-node@v3
        with:
          node-version: ${{ matrix.node-version }}
          cache: 'npm'
      - run: npm install
      - run: npm start
      - run: npm test
      - run: curl https://api.render.com/deploy/srv-cnqebo6d3nmc7393cq0?key=L9jaKXy2aec
```

- The CI/CD pipeline is hosted by Github Actions using yml files.
- This action only runs when pull requests/pushes to the main branch occurs.
- In this simple pipeline, we use Ubuntu to install node, the required dependencies, test it with Jest, and then deploy to Render.

# Testing

- We tested whether the ui would receive responses from chatGPT
- We tested if the AI would only respond to PC topic inquiries
- We tested if eBay if the seller ratings were displayed to user
- We tested to check the integrity of the gpt API
- We tested if the AI was trained to only respond to PC inquiries

```
test('Check to see if Ebay responds with correct item', async () => {  
  let url = "https://api.ebay.com/buy/browse/v1/item_summary/search";  
  let q = `q=GPU`;  
  let limit = `limit=${5}`;  
  
  let response = await axios.get(`${url}?${q}&${limit}`, {  
    headers: {  
      Authorization: `Bearer ${ebayTestingToken}`,  
      "Content-Type": "application/json",  
    },  
  });  
  
  try {  
    let title = response.data.itemSummaries[0].title.toUpperCase()  
  
    let found = title.match("GPU")  
  
    expect(found).toBeTruthy();  
  } catch (err) {  
    expect(err).toBeNull();  
  }  
});
```




# **Video Demonstration**







# Project Takeaways

- Optimism and lack of research: we should've done more research on APIs as Best Buy and GPT API increased the project's scope significantly. We were also very optimistic on the project requirements.
  - API research: it is important to research the APIs that we're going to use, as we find a lot of problems with eBay's API with endcalls being deprecated.
  - Back-end programming: we learnt a lot about back-end programming, specifically how the front-end communicates with the back-end and how API calls work.
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# Thank you!

