NoCap: Fact Checking with AI Milestone 1

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Milestone 1 Task Matrix

Task	Completion	Thomas	Josh	Anthony	Varun
1. Compare/select technical tools	100%	25%	25%	25%	25%
2. Hello World demos	100%	25%	25%	25%	25%
3. Resolve technical challenges	20%	25%	25%	25%	25%
4. Compare/select collaboration tools	100%	25%	25%	25%	25%
5. Requirement Document	100%	25%	30%	25%	20%
6. Design Document	100%	20%	30%	20%	30%
7. Test Plan	100%	70%	10%	10%	10%

Compare Technical & Collaborative Tools

Technical Tools

- Programming Language: Python
- API: FlaskAPI
- IDE: VSCode
- AI Hosting: AWS Bedrock

Collaborative Tools

- Communication: Text
- Documentation: Google Docs/Slides
- Version Control: Github

Hello World Demos

ai_prompt.py M

Project > backend > ai_prompt.py > ...

```python
import boto3
import json

# Create the Bedrock client
bedrock = boto3.client(
    service_name="bedrock-runtime",
    region_name="us-east-1"  # Change region if needed
)

# Correct Model ID for Amazon Nova Lite
MODEL_ID = "us.amazon.nova-lite-v1:0"

# Prepare request body using "messages"
body = {
    "messages": [
        {
            "role": "user",
            "content": [
                {"text": "Tell me a fun fact."}
            ]
        }
    ],
    "inferenceConfig": {
        "maxTokens": 300,
        "temperature": 0.7,
        "topP": 0.9
    }
}

# Invoke the model
response = bedrock.invoke_model(
    modelId=MODEL_ID,
    body=json.dumps(body)
)

# Parse and print the response
result = json.loads(response["body"].read())
print("Model Response:\n")
print(result["output"]["message"]["content"][0]["text"])
```

Hello World Demos

```
((.venv) ) Varuns-MBP:Senior Project tdodda$ python -u "/Users/tdodda/Desktop/Work/Senior Project/Project/backend/ai_prompt.py"
Model Response:

Sure! Here's a fun fact:

Honey never spoils. Archaeologists have found pots of honey in ancient Egyptian tombs that are over 3,000 years old and still perfectly edible. This
incredible longevity is due to the honey's chemical composition, which includes a low water content and high acidity, creating an environment that is
 inhospitable to bacteria and microorganisms. This makes honey one of the few natural foods with an indefinite shelf life.
```

Resolve Technical Challenges

- **Front end Design**
  - Keep it simple and accessible
- **LangChain/LangGraph**
  - Ensure team members are on the same page for these modules
  - Work by scale. Make use of these modules on a smaller program first, and ensure they work
- **AI Connection**
  - Ensure connection works and is stable from the beginning
  - Work by scale

Requirements

Functional

- 3.1.1 Amazon Bedrock Integration
- 3.1.2 Text/URL entry
- 3.1.3 Authenticity Score
- 3.1.4 Publisher Aggregate Score
- 3.1.5 Publisher Aggregate Ranking
- 3.1.6 Chrome Extension
- 3.1.7 Database
- 3.1.8 WCAG Accessibility Guidelines
- 3.1.9 GitHub CI/CD pipeline

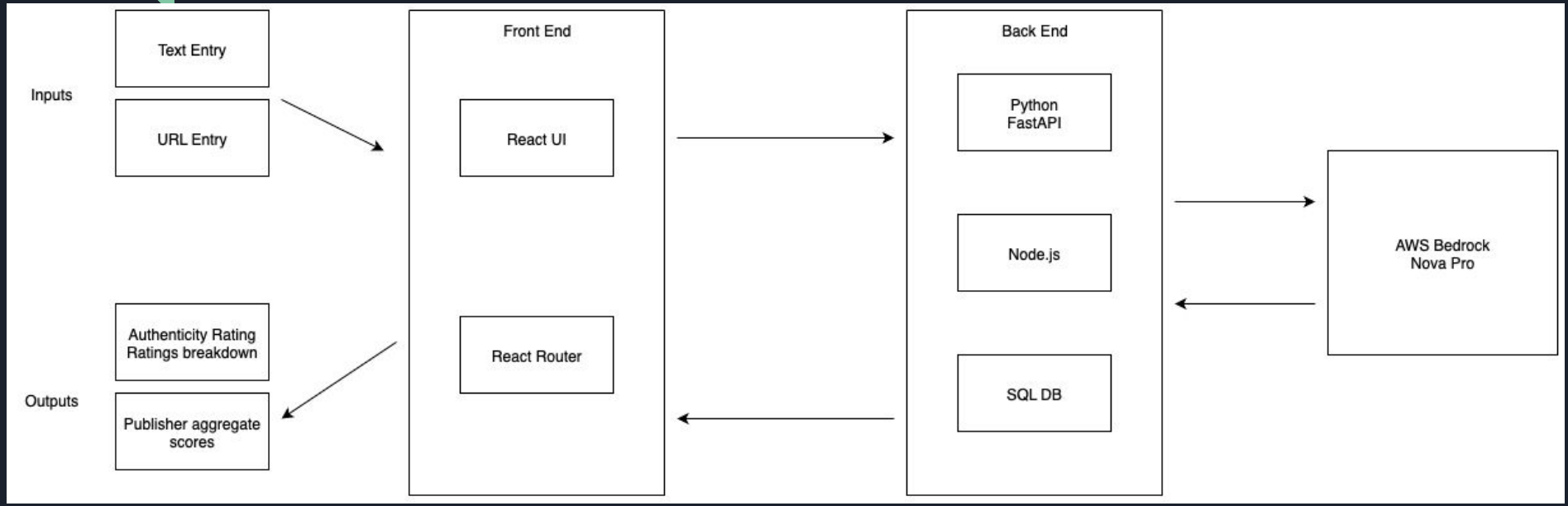
Interface

- 3.2.1 Home Page
- 3.2.2 Rating Page
  - 3.2.2.1 Overall Score
  - 3.2.2.2 Details of the Analysis
- 3.2.3 Aggregate Page
- 3.2.4 Extension Page
- 3.2.5 Multi-Browser Compatibility

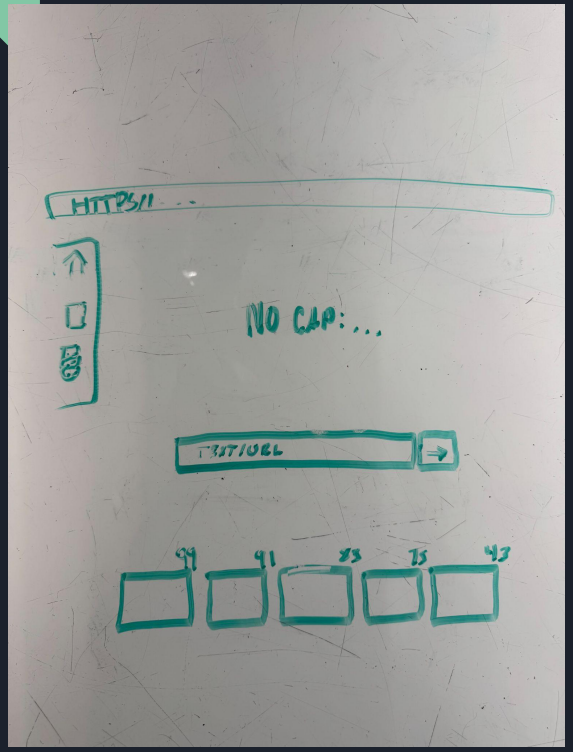
Performance

- 3.3.1 Speed
- 3.3.2 Scalability
- 3.3.3 Reliability
- 3.3.4 Usability

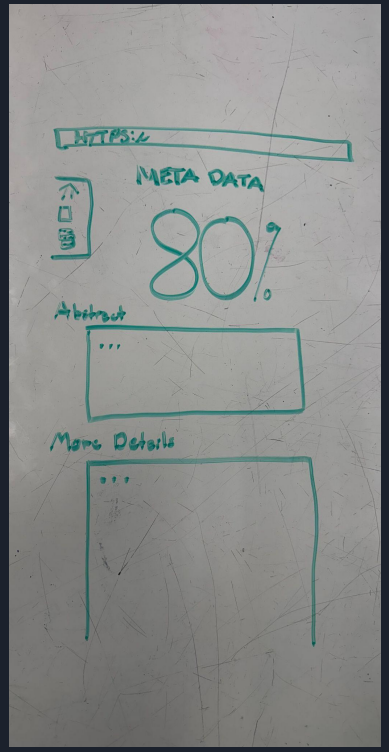
Design: Architecture Diagram



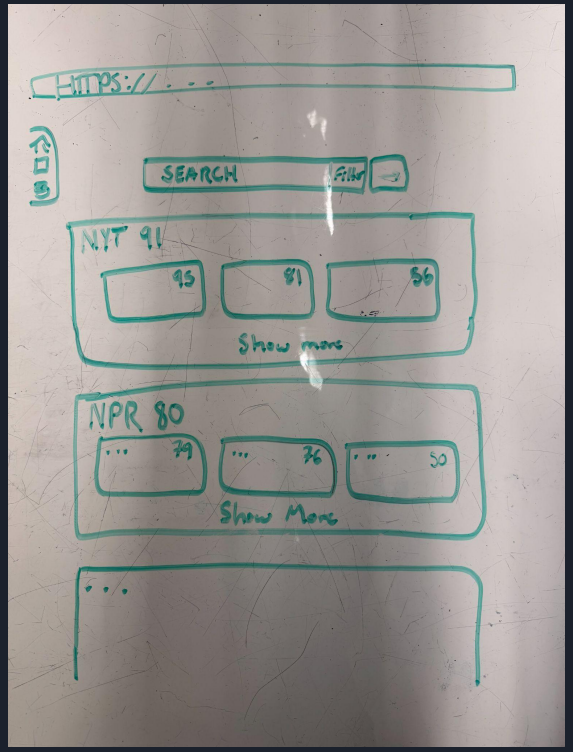
Design: Screen Examples



Home Screen



Report Screen



Database Screen

Test Plan: Core Features

- Accepts text/URL input
  - Submit by raw text
  - Submit by URL\
  - Multilingual articles
- Generates Rating
  - Correctness
  - Performance
  - Failure Behavior
- Rating Explanation Provided
  - Explanation Accuracy
  - Explanation Format
  - Evidence Grounding
  - Length/Readability
- WCAG Guidelines
  - Keyboard Navigation
  - Color Contrast
  - Text for Images
  - Screen Reader

Milestone 2 Matrix

Task	Thomas	Anthony	Josh	Varun
1. Design front end	25%	25%	25%	25%
2. Set up AI model on AWS	25%	25%	25%	25%
3. Establish basic connection with AI	25%	25%	25%	25%
4. Develop rudimentary backend and API	25%	25%	25%	25%