



# Park Pal

## GPT Enabled Chatbot



### Collaborators

Nicole Blakkan-Esser  
Lauralyn Curry-Leech  
Courtney Gibson



### GitHub

[https://github.com/nblakkanesser/MAD\\_S\\_Capstone](https://github.com/nblakkanesser/MAD_S_Capstone)

YEARLY VISITORS:

300 Million

JOBS ADDED:

300 Thousand

20 Billion

IN LOCAL ECONOMIC CONTRIBUTIONS



NO VIRTUAL ASSISTANT CAPABILITIES

## PROJECT ROADMAP

1 PREPARE SYNTHETIC DATA



2

FINE-TUNE GPT



3 NLTK & SPACY



4

HOST PARK PAL



5 COMPUTE WITH LAMBDA



6

STORE WITH S3



## Synthetic Data

Synthetic queries were developed to represent questions that users may ask in association with five NPS API endpoint. The team used an 80/20 split to create test & validation data. Separate queries were developed for evaluating the models to prevent data leakage.

82k Queries

## Model Evaluation

Evaluation methodology

## National Park Service: Park Pal



You can ask questions about parks, amenities, events, fees, and more. Type 'exit' to end the chat.

👤: How can I help you?

Where can I find Zion National Park?

👤: Zion National Park is located at Zion National Park 1 Zion Park Blvd. in Springdale, Utah 84767

What is the description of the Grand Canyon?

👤: Here is the description of Grand Canyon National Park: Entirely within Northern Arizona, the park encompasses 278 miles (447 km) of the Colorado River and adjacent uplands. Located on ancestral homeland of 11 present day Tribal Communities, Grand Canyon is one of the most spectacular examples of erosion anywhere in the world—a mile deep canyon unmatched in the incomparable vistas it offers visitors from the north and south rims.

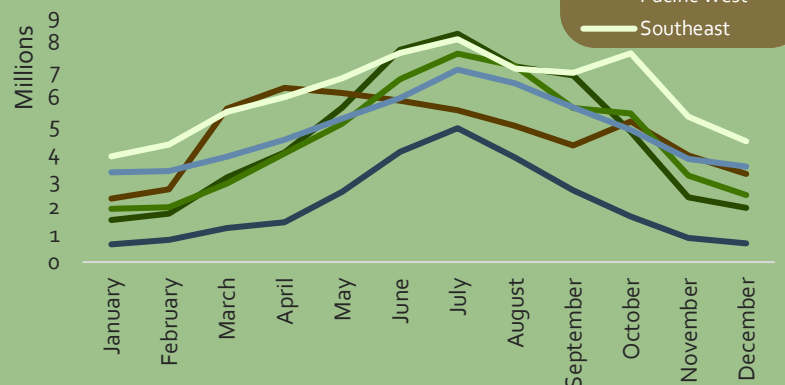
Type your message here

Send

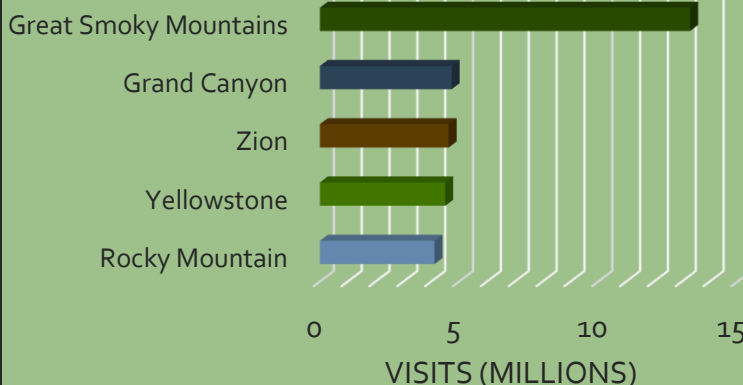
Chat with Park Pal Today!



## Recreational Visits 2023



## Top 5 National Parks 2023



## Fine-Tuned GPT

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OPENAI

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## SpaCy & NLTK

2012

Studying at ABC

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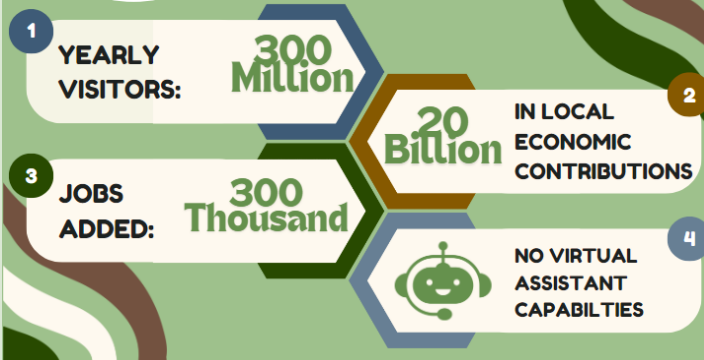
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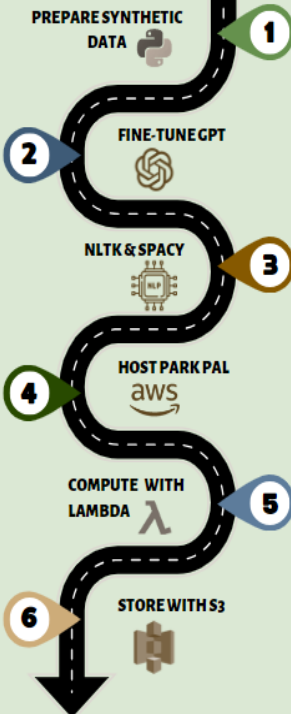
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## PROJECT ROADMAP



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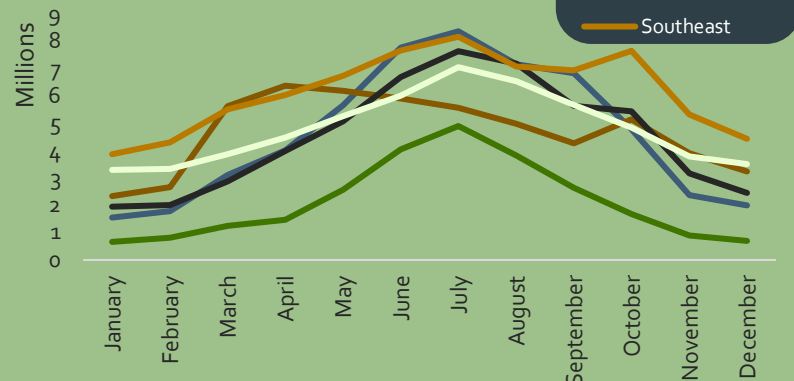
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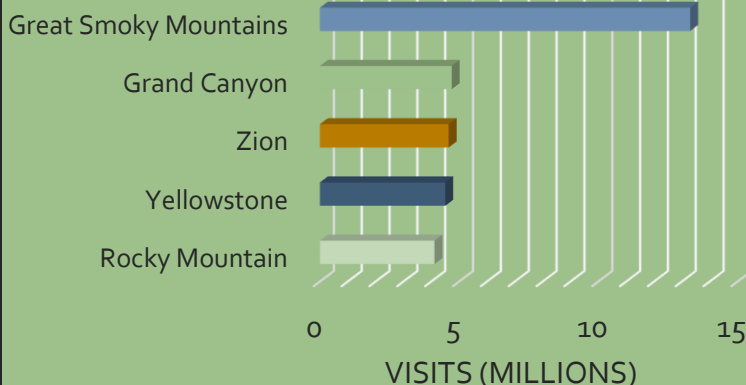
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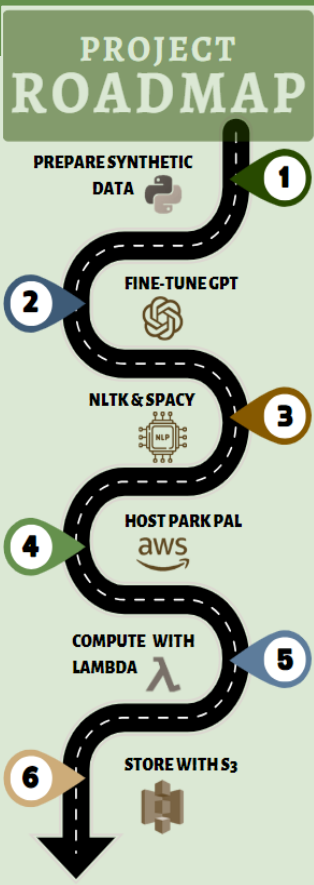
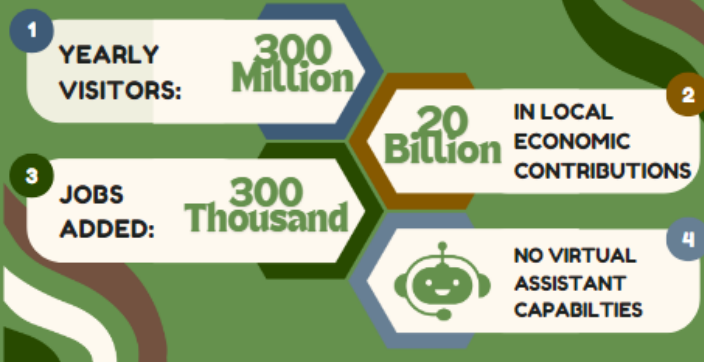
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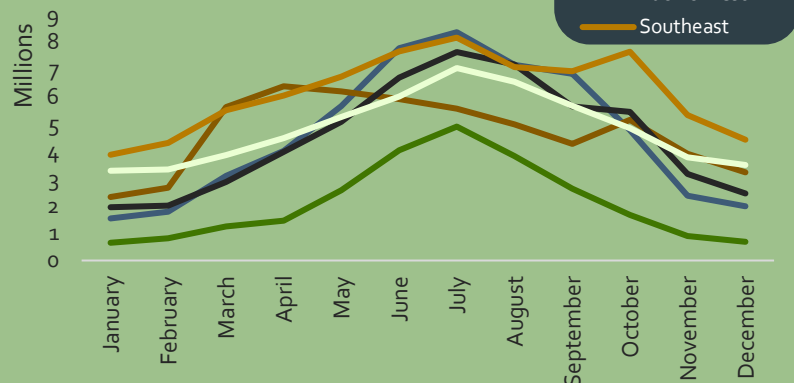
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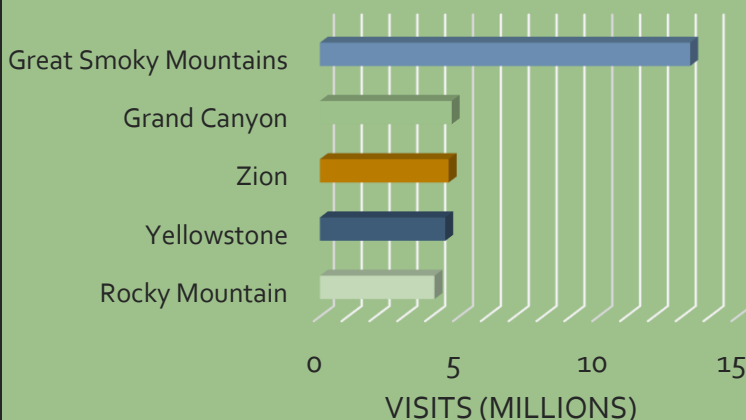
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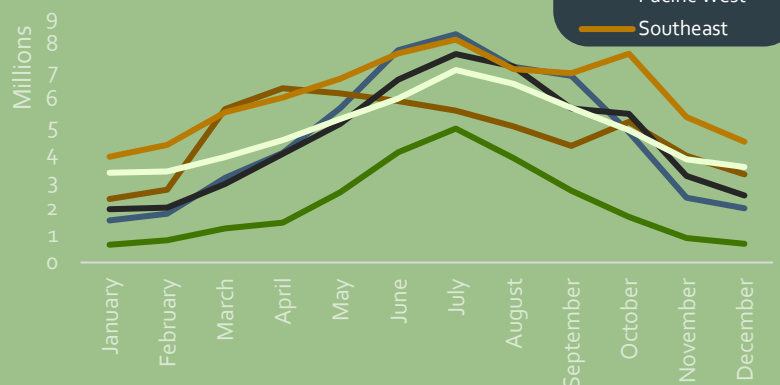
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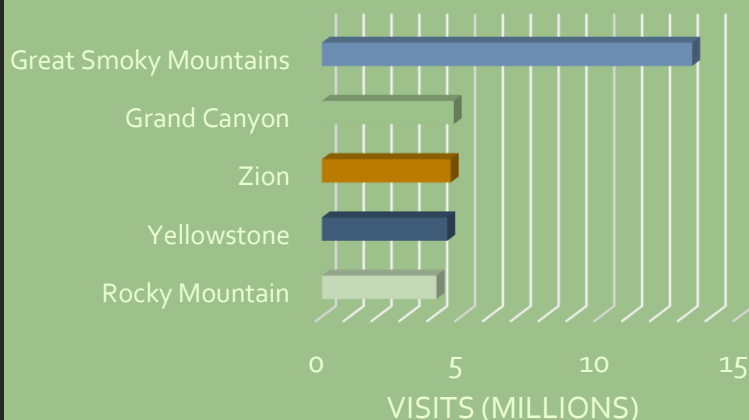
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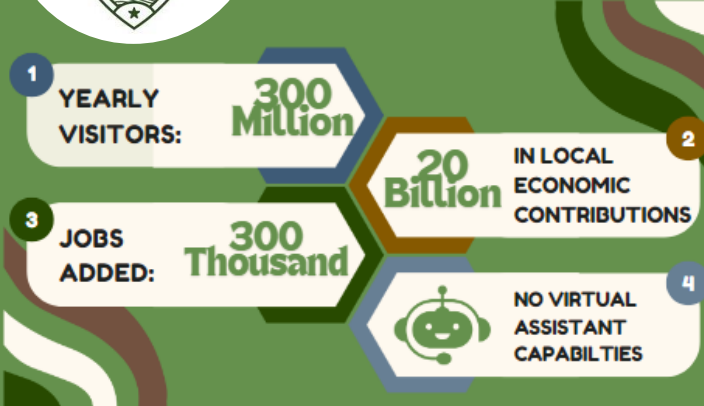
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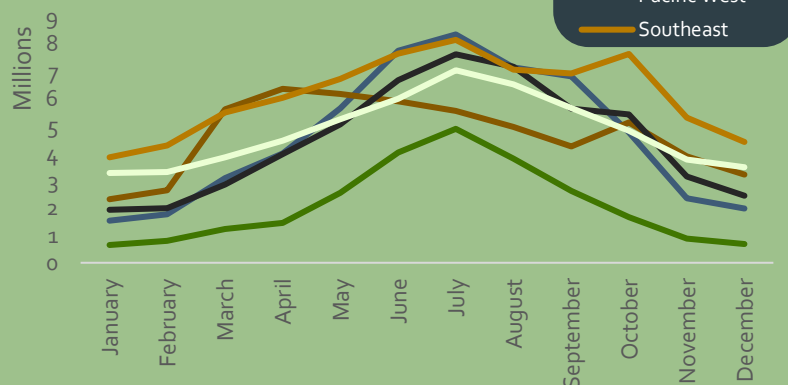
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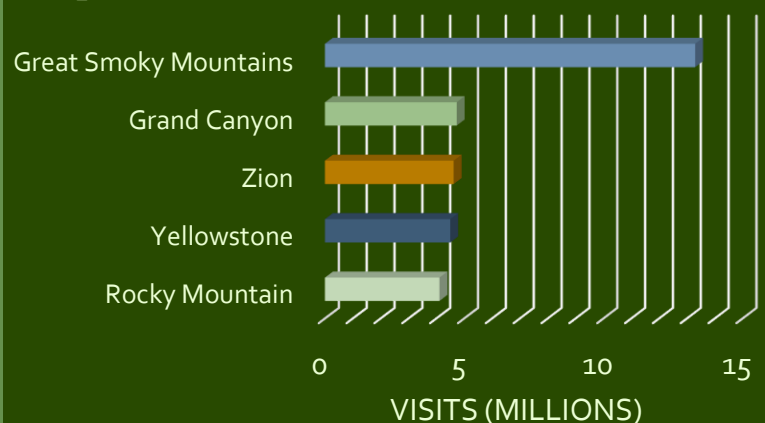
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## Top 5 National Parks 2023





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## National Parks Service



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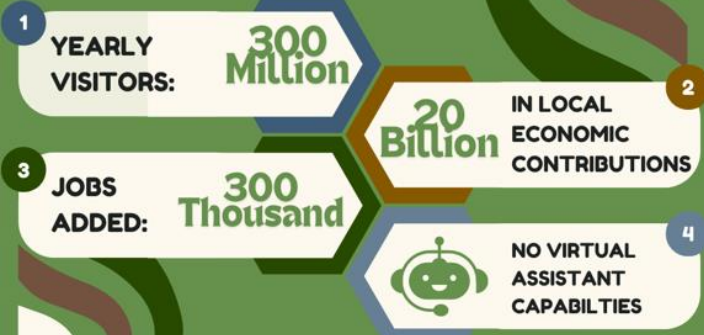
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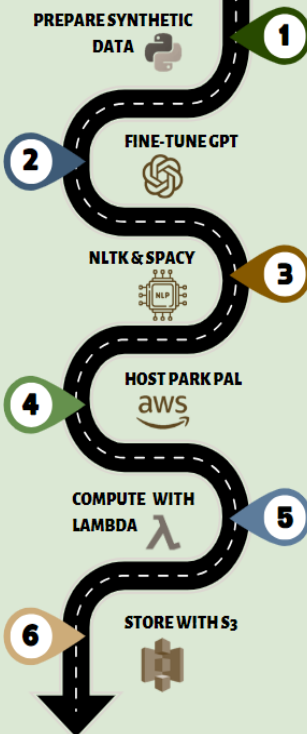
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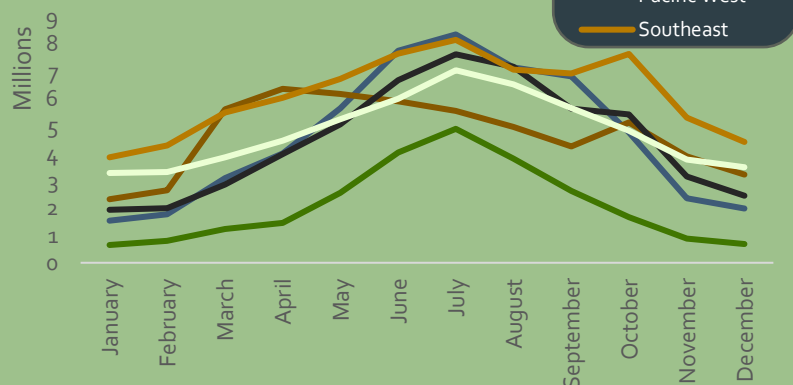
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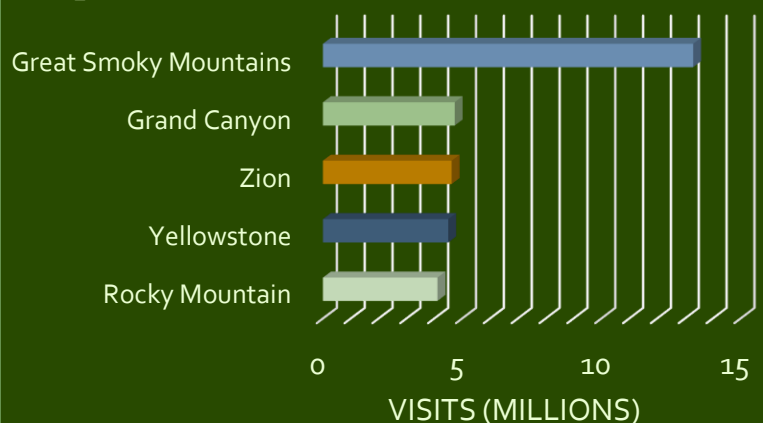
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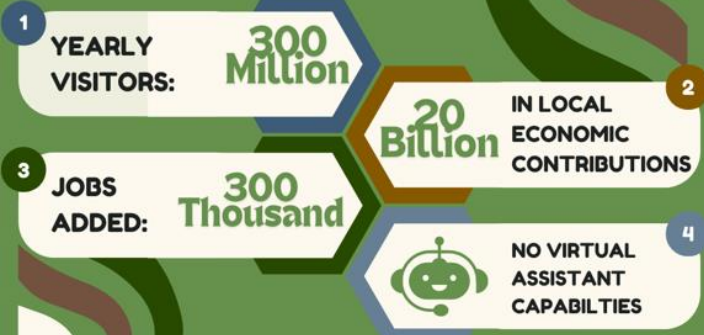


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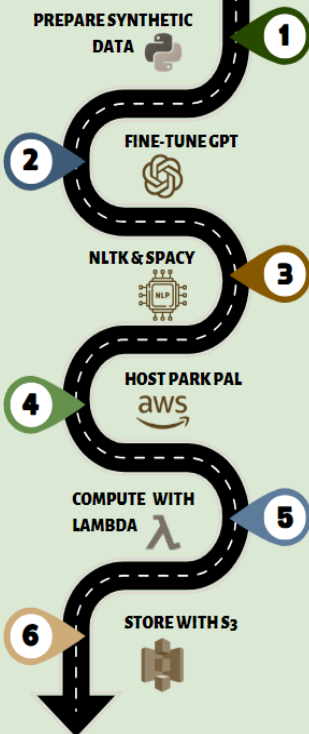
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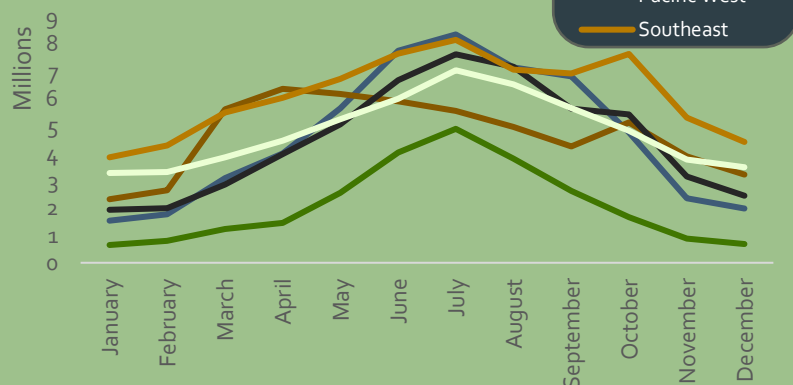
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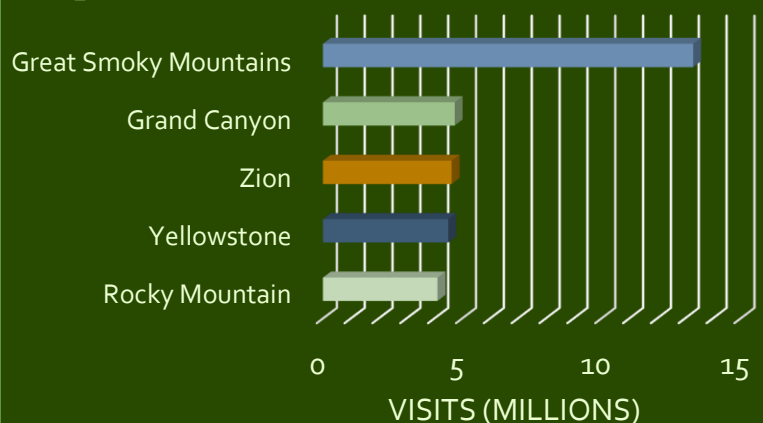
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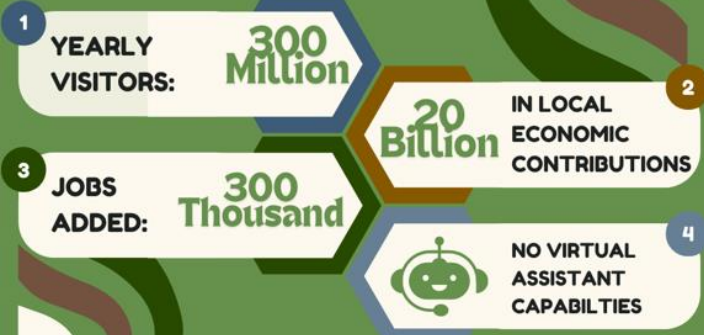
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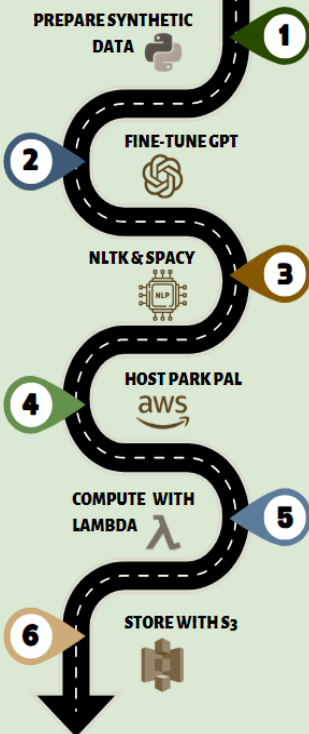
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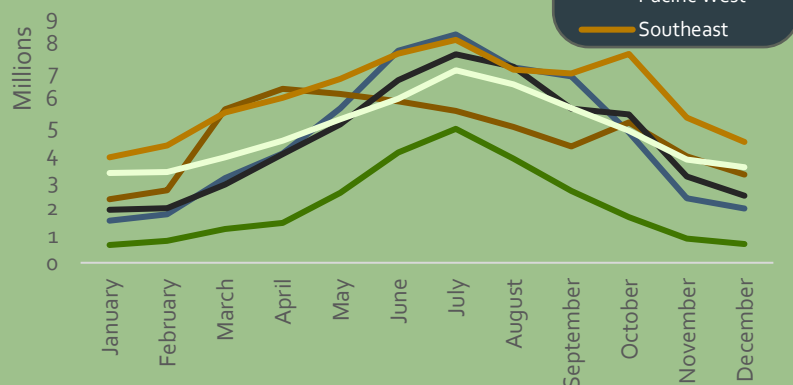
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