

ADVANCE PYTHON-LAB ASSINGMENT

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TOUR RECOMMENDATION SYSTEM

22MID0127

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# Dictionary to map places to categories/interests
place_categories = {
    "Paris": "History",
    "London": "History",
    "New York": "Modern City",
    "Tokyo": "Modern City",
    "Rome": "History",
    "Dubai": "Shopping",
    "Sydney": "Beach",
    "Bali": "Beach",
    "Istanbul": "History",
    "Cape Town": "Nature",
    "Maldives": "Beach",
    "Singapore": "Shopping",
    "Zurich": "Nature",
    "Bangkok": "Shopping",
    "Reykjavik": "Nature",
}
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# Extract all available places
available_places = list(place_categories.keys())

print("Here are our destinations:")
print(available_places)

# Get user's visited places
visited_places = input("\nEnter the places you have already visited (comma-separated): ").split(',')
visited_places = [place.strip().title() for place in visited_places]

# Remove visited places from available_places using remove() and del
recommended_places = available_places.copy()
for place in visited_places:
    if place in recommended_places:
        recommended_places.remove(place)

# Create a list of detected interests
interests = []
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for place in visited_places:
    category = place_categories.get(place)
    if category:
        interests.append(category)

# Sort interests
interests.sort()

# Find the most common interest
if interests:
    preferred_interest = max(set(interests), key=interests.count)
else:
    preferred_interest = None

# Recommend new places matching the preferred interest
final_recommendations = []
for place in recommended_places:
    if place_categories[place] == preferred_interest:
        final_recommendations.append(place)

# Output
print("\n Based on your visited places, we identified your interest as:", preferred_interest)

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print("\n Recommended Places Matching Your Interest:")
if final_recommendations:
    print(final_recommendations)
else:
    print("You've explored all places in your favorite category! Try a new adventure!")

```

Here are our destinations:

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['Paris', 'London', 'New York', 'Tokyo', 'Rome', 'Dubai', 'Sydney', 'Bali', 'Istanbul', 'Cape Town', 'Maldives', 'Singapore', 'Zurich', 'Bangkok', 'Reykjavik']
```

Enter the places you have already visited (comma-separated): paris,new york,dubai

Based on your visited places, we identified your interest as: Modern City

Recommended Places Matching Your Interest:

```
['Tokyo']
```