

```

# -*- coding: UTF-8 -*-
"""PyPoll Homework Challenge Solution."""

# Add our dependencies.
import csv
import os

# Add a variable to load a file from a path.
file_to_load = 'election_results.csv'
# Add a variable to save the file to a path.
file_to_save = os.path.join("analysis", "election_results.txt")

# Initialize a total vote counter.
total_votes = 0

# Candidate Options and candidate votes.
candidate_options = []
candidate_votes = {}

# 1: Create a county list and county votes dictionary.
county = []
county_votes = {}

# Track the winning candidate, vote count and percentage
winning_candidate = ""
winning_count = 0
winning_percentage = 0

# 2: Track the largest county and county voter turnout.
largest_county_count = 0
county_voter = ""

# Read the csv and convert it into a list of dictionaries
with open(file_to_load) as election_data:
    reader = csv.reader(election_data)

    # Read the header
    header = next(reader)

    # For each row in the CSV file.
    for row in reader:

        # Add to the total vote count
        total_votes += 1

```

```

# Get the candidate name from each row.
candidate_name = row[2]

# 3: Extract the county name from each row.
county_name = row[1]

# If the candidate does not match any existing candidate add it to
# the candidate list
if candidate_name not in candidate_options:

    # Add the candidate name to the candidate list.
    candidate_options.append(candidate_name)

    # And begin tracking that candidate's voter count.
    candidate_votes[candidate_name] = 0

# Add a vote to that candidate's count
candidate_votes[candidate_name] += 1

# 4a: Write an if statement that checks that the
# county does not match any existing county in the county list.
if county_name not in county:

    # 4b: Add the existing county to the list of counties.
    county.append(county_name)

    # 4c: Begin tracking the county's vote count.
    county_votes[county_name] = 0

# 5: Add a vote to that county's vote count.
county_votes[county_name] += 1

# Save the results to our text file.
with open(file_to_save, "w") as txt_file:

    # Print the final vote count (to terminal)
    election_results = (
        f"\nElection Results\n"
        f"-----\n"
        f" -Total Votes: {total_votes:,}\n"
        f"-----\n"
        f"\nCounty Votes\n"
        f"-----\n")
    print(election_results, end="")

```

```

txt_file.write(election_results)

# 6a: Write a for loop to get the county from the county dictionary.
for county in county_votes:
    # 6b: Retrieve the county vote count.
    votes_county = county_votes.get(county)
    # 6c: Calculate the percentage of votes for the county.
    county_vote_percentage = float(votes_county) / float(total_votes) * 100
    county_results = (
        f" -{county} county cast {county_vote_percentage:.1f}% of the vote
and {votes_county:,} number of votes.")
    # 6d: Print the county results to the terminal.
    print(county_results)
    # 6e: Save the county votes to a text file.
    txt_file.write(county_results)
    # 6f: Write an if statement to determine the winning county and get its
vote count.
    if (votes_county > largest_county_count) and (county_vote_percentage >
winning_percentage):
        largest_county_count = votes_county
        county_voter = county

# 7: Print the county with the largest turnout to the terminal.
largest_county_summary = (
    f"-----\n"
    f"\nLargest County Results\n"
    f"-----\n"
    f" -Largest County Turnout: {county_voter}\n"
    f" -Largest County Vote Count: {largest_county_count:,}\n"
    f"-----\n"
    f"\nCandidate Results\n"
    f"-----\n")
print(largest_county_summary)

# 8: Save the county with the largest turnout to a text file.
txt_file.write(largest_county_summary)

# Save the final candidate vote count to the text file.
for candidate_name in candidate_votes:

    # Retrieve vote count and percentage
    votes = candidate_votes.get(candidate_name)
    vote_percentage = float(votes) / float(total_votes) * 100
    candidate_results = (

```

```
        f" -{candidate_name} received {vote_percentage:.1f}% of the vote and  
{votes:,} number of total votes\n")  
  
    # Print each candidate's voter count and percentage to the  
    # terminal.  
    print(candidate_results)  
    # Save the candidate results to our text file.  
    txt_file.write(candidate_results)  
  
    # Determine winning vote count, winning percentage, and candidate.  
    if (votes > winning_count) and (vote_percentage > winning_percentage):  
        winning_count = votes  
        winning_candidate = candidate_name  
        winning_percentage = vote_percentage  
  
    # Print the winning candidate (to terminal)  
    winning_candidate_summary = (  
        f"-----\n"  
        f"Winner: {winning_candidate}\n"  
        f"Winning Vote Count: {winning_count:,}\n"  
        f"Winning Percentage: {winning_percentage:.1f}%\n"  
        f"-----\n")  
    print(winning_candidate_summary)  
  
    # Save the winning candidate's name to the text file  
    txt_file.write(winning_candidate_summary)
```