#Exercise 1 def titleMaker(title, character1, character2):#Set Parameters #Get the inputs title = input("Please put in the tittle of the program: ").upper() character1 = input("Please enter a character: ") character2 = input("Please enter a character: ") space = ' ' #Create the title with the gathered inputs print(character1*50) print(f"{character1*2} {space*44} {character1*2}") print(f"{character1*2} {space*15} {character2*2} {character2*2} {space*15} {character1*2}") print(f"{character1*2} {space*44} {character1*2}") print(character1*50) #Return the function return title, character1, character2

print(titleMaker())

#Exercise 2 def format_number(num): # Check if the input number has exactly 12 digits if num < 100000000000 or num >= 1000000000000: return "Error: Input number must have 12 digits"

```
# Extract the three sections of four digits each using floor division and modulo operator
section1 = num // 1000000
section2 = (num // 1000) % 1000
section3 = num % 1000

# Format the output with hyphens
formatted_num = f"{section1:04}-{section2:03}-{section3:03}"

return formatted_num
```

Test the function

num = int(input("Enter a 12-digit integer number: ")) print(format_number(num))

#Exercise 3 def age_comparison(): people = [{"name": input("Enter the name of person 1: "), "age": int(input("Enter the age of person 1: "))}, {"name": input("Enter the name of person 2: "), "age": int(input("Enter the age of person 2: "))}, {"name": input("Enter the name of person 3: "), "age": int(input("Enter the age of person 3: "))}]

```
oldest_person = people[0]
youngest_person = people[0]

for person in people:
    if person["age"] > oldest_person["age"]:
        oldest_person = person
    if person["age"] < youngest_person["age"]:
        youngest_person = person

def get_age_category(age):
    if 13 <= age <= 19:
        return "Teen: Ages 13-19"
    elif 20 <= age <= 64:
        return "Adult: Ages 20-64"
    else:
        return "Senior: Ages 65 and above"

for person in people:
    print(f"{person['name']}'s age category is {get_age_category(person['age'])}.")

print(f"The oldest person is {oldest_person['name']}.")
print(f"The youngest person is {youngest_person['name']}.")
```

Run the program

age_comparison()

#Exercise 4 def calculate_age(): name = input("Enter your name: ") year_of_birth = int(input("Enter your year of birth: "))

```
age_at_2024 = 2024 - year_of_birth
print(f"Hello, {name}, At the end of 2024, you will be {age_at_2024} years old.")

# Calculate age in minutes and seconds
minutes_lived = age_at_2024 * 525600  # 525600 minutes in a year
seconds_lived = minutes_lived * 60
print(f"Your age in minutes is approximately {minutes_lived} minutes.")
print(f"Your age in seconds is approximately {seconds_lived} seconds.")

# Find leap years
print("The leap years you have lived through are:")
leap_years = [year for year in range(year_of_birth, 2024) if year % 4 == 0 and (year % 100 != 0 or year % 400 == 0)]
for year in leap_years:
    print(year)

print(f"You have lived through {len(leap_years)} leap years.")
```

calculate_age()