

C4C WACODE HACKATHON

# — H2O CONSERVATION

TIM + DAVID + PETER

## — THE TEAM



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Finance | MIS

Incoming Summer  
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Electric & Computer  
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A world map with a color gradient from blue in the north to red in the south. Seven white location pins are placed on the map: North America, Europe, Africa, Asia, Australia, South America, and Antarctica. The title 'The Issue' is centered over the map in a large, white, sans-serif font.

# The Issue

## — OUR SOLUTION

- End user consciousness
- Peer-to-peer comparison
- Simple graphical interface
- Fun for all ages!

```
result = f"Water Usage:\n"
for k, v in water_usage.items():
    result += f"{k.capitalize()}: {v} gallons\n"

result += "\nWater Saving Tips:\n"
for tip in tips:
    result += f"{tip}"

dict_sum = sum(water_usage.values())
cumulative_cost = dict_sum * .009
household_cost = cumulative_cost * 3.13

messagebox.showinfo("Water Usage Results", result)
return dict_sum, household_cost

def on_profile_select(event):
    user = users[profile_select.current()]
    name_var.set(user.name)

def add_profile():
    global profile_window
    profile_window = tk.Toplevel(app)
    profile_window.title("Add Profile")

    global profile_name_var
    profile_name_var = tk.StringVar()
    profile_name_entry = ttk.Entry(profile_window, textvariable=profile_name_var)
```

## — FEATURES

### PROFILES

Add/update based  
on specific usage  
criteria

### GRAPHICAL COMPARISON

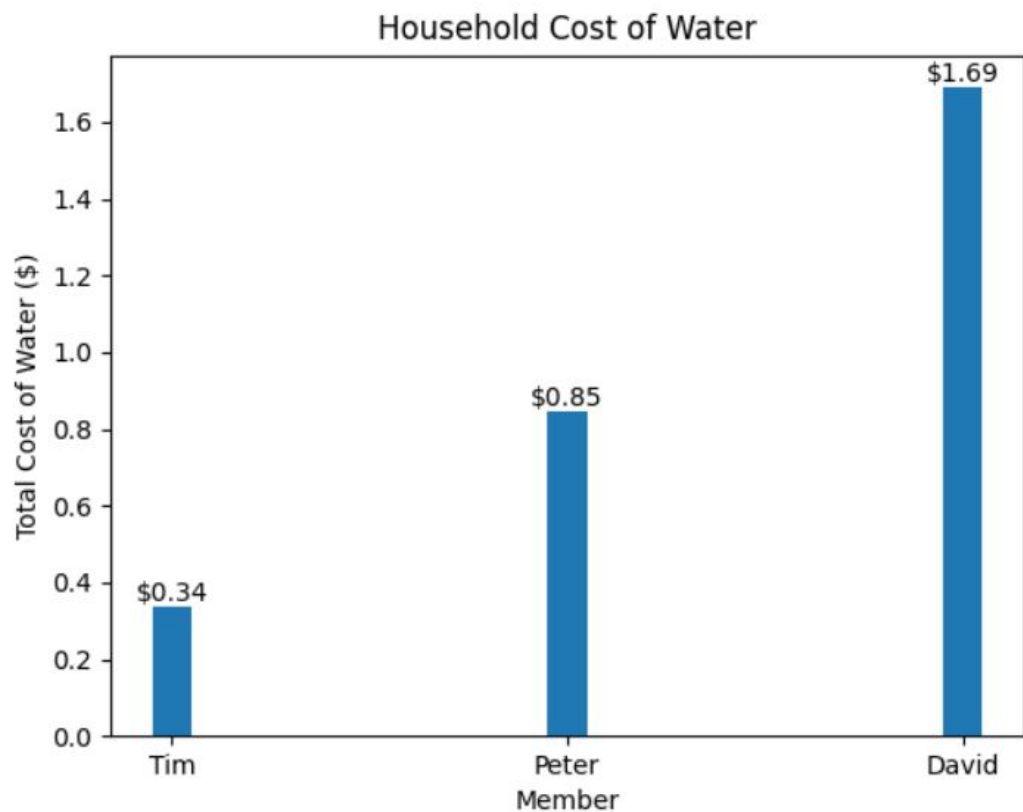
Graphical view of  
individual water usage

Comparison between  
profiles of choice

### GAME!

Save the water!

Figure 1



## — TOOLS USED

### Profiles

- Python
- TKinter
- Matplotlib
- Pygames

### Skills

- UX design
- Object-oriented programming
- GUI
- Game design





# DEMO!



# FUTURE USE

- Deploy to mobile app
- Ability to swap between resources (H2O, CO2, electricity)
- More Interactive Dashboard
- More game integration

