



THE VISIONARIES

SUSTAINABLE HOME SYSTEM

GROUP 11

Group Members :

Rohan Nikam

Manjusha Rote

Samruddhi Sonawane

Abhijeet Kanawade

Jay Ushir

Vedant Kshatriya

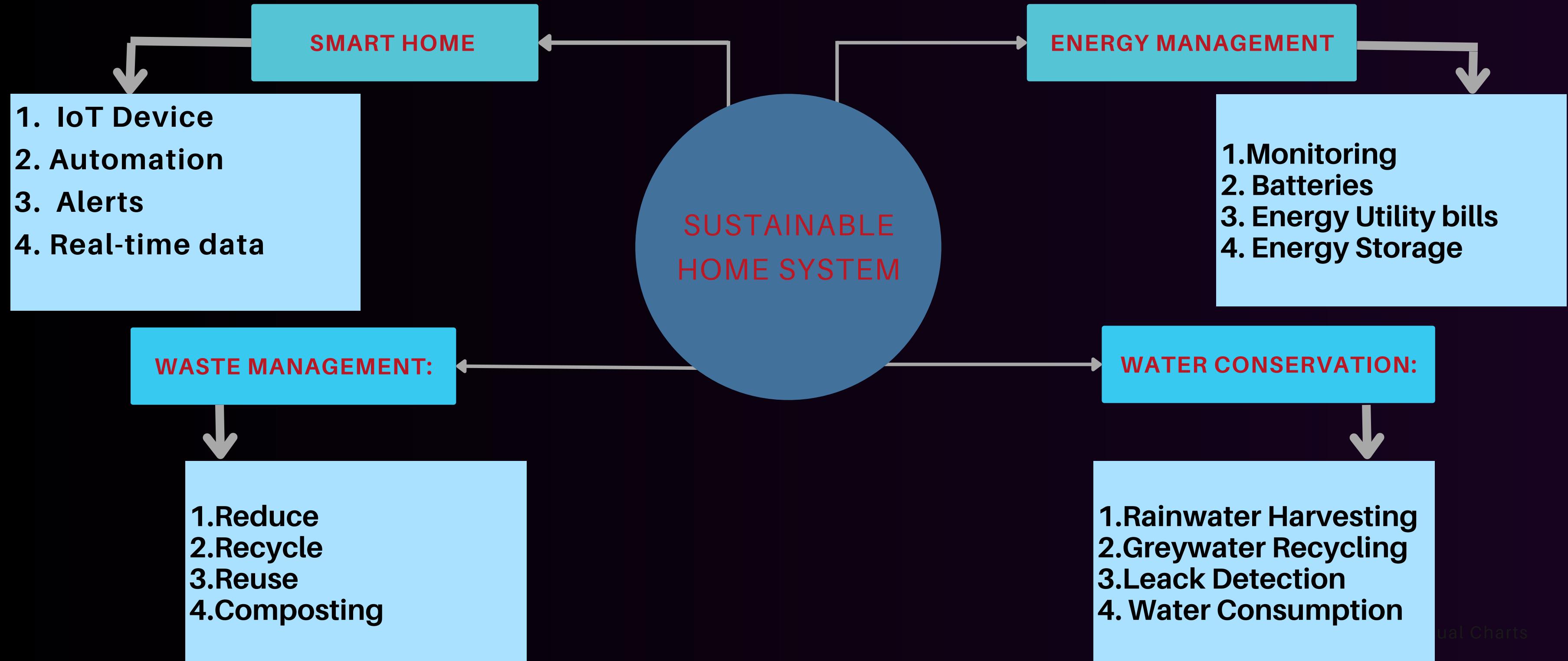


PROBLEM STATEMENT

Homeowners can't easily track their electricity use, water use, and room temperature, which leads to water waste and higher energy bills.

So we are implementing an app that will help track water and electricity usage .

MIND MAPPING



PERSONA 1: Home Owner

BACKGROUND:

1. Seema is a 35-year-old lady.
2. Well-educated and Scholar
3. Belong to an upper middle class family.
4. Having two children.
5. Housewife

CHALLENGES FACED :

1. Responsibility of two children.
2. As being a single parent handling all the responsibilities and other expenses.
3. High energy utility Bills

MOTIVATION:

1. Financial Savings
2. Her children

DOUBTS / FEAR:

1. Fear of society
2. High expenses
3. Handling whole family

Aspiration:

Track monthly electricity bills and reduce consumption to reduce utility bills.

SUMMARY:

Seema is a 35-year-old lady , she is well educated and scholar. Belongs to upper middle class family. She is a single parent of two children. And it's hard to handle all responsibilities and other expenses too.

PERSONA 2: Renter

BACKGROUND:

1. Rehan is 25-year Boy.
2. Pursuing his masters degree.
3. Belong to an lower Class family
4. Living away from family.
5. Elder son of his parents.

CHALLENGES FACED:

1. Responsibility of family and self expenses.
2. As being a elder son have all the responsibilities and have to pay all his fees and other expenses by himself.
3. Living in rental home and getting more water and electricity bill.

MOTIVATION:

1. Financial Condition
2. His parents

DOUBTS / FEAR:

1. Fear of failure
2. High expenses
3. Increasing Electricity and Water use

Aspiration:

Track monthly water usage and electricity bills to reduce consumption of electricity and conservation of water.

SUMMARY:

Rehan is 25 year boy, currently pursuing masters degree because of education purpose living away from his family. He is elder son of his parents so having all responsibility. As he belongs to lower class family he have to pay his college fees and other expenses by himself. And living in rental home he is getting more electricity and water bills.

5W 1H MATRIX

- WHO IS AFFECTED BY THE PROBLEM?
 - Homeowners and Residents
- WHERE DOES THE PROBLEM OCCUR ?
 - In homes and residential buildings, especially those relying on unsustainable resources.
- WHAT EXACTLY IS THE ISSUE?
 - Issue is that Homeowners are facing the problems of high electricity bills and water bills, there is no proper tracking of electricity and water consumption.

5W 1H MATRIX

- WHEN DOES THIS PROBLEM ARISE ?

- The problem arises continuously due to daily energy consumption and resource use.

- WHY IS SOLVING THIS IMPORTANT?

- solving it is crucial for lowering energy utility bills, and to reduce waste of water.

- HOW WILL YOUR SOLUTION ADDRESS THE PROBLEM ?

- By implementing app for tracking electricity and water use which will give real-time data and will help to reduce electricity consumption.

THEORY OF PRIORITIZATION

Sr.No	Identified Problems	Total Weightage	Group Members					
			Rohan	Manjusha	Jay	Samruddhi	Abhijeet	Vedant
1	Tracking and Controlling	5100	1000g	100g	1000g	1000g	1000g	1000g
2	Security and Safety	4020	1000g	10g	1000g	10g	1000g	1000g
3	Limited Research	3210	100g	10g	1000g	1000g	1000g	100g
4	Technology Limitations	3210	10g	1000g	100g	1000g	1000g	100g
5	Maintainance	2310	1000g	100g	100g	1000g	100g	10g
6	Awareness	2040	10g	10g	1000g	10g	1000g	10g
7	Enviromental Impact	1500	100g	100g	100g	100g	100g	1000g
8	Wastage of Water	1500	100g	1000g	100g	100g	100g	100g
9	Increasing Energy utility bills	600	100g	100g	100g	100g	100g	100g
10	Global Warming	60	10g	10g	10g	10g	10g	10g

SCAMPER ACTIVITY

SCAMPER stands for:

S - Substitute

C - Combine

A - Adapt

M - Modify

P - Put to another use

E - Eliminate

R - Reverse

So, from these tools, we chose the Modify tool to improve the features of the existing system for more impact. By modifying energy and water tracking features, we have improved the existing system.

JOURNEY MAP:

Event 1- Renters Download App

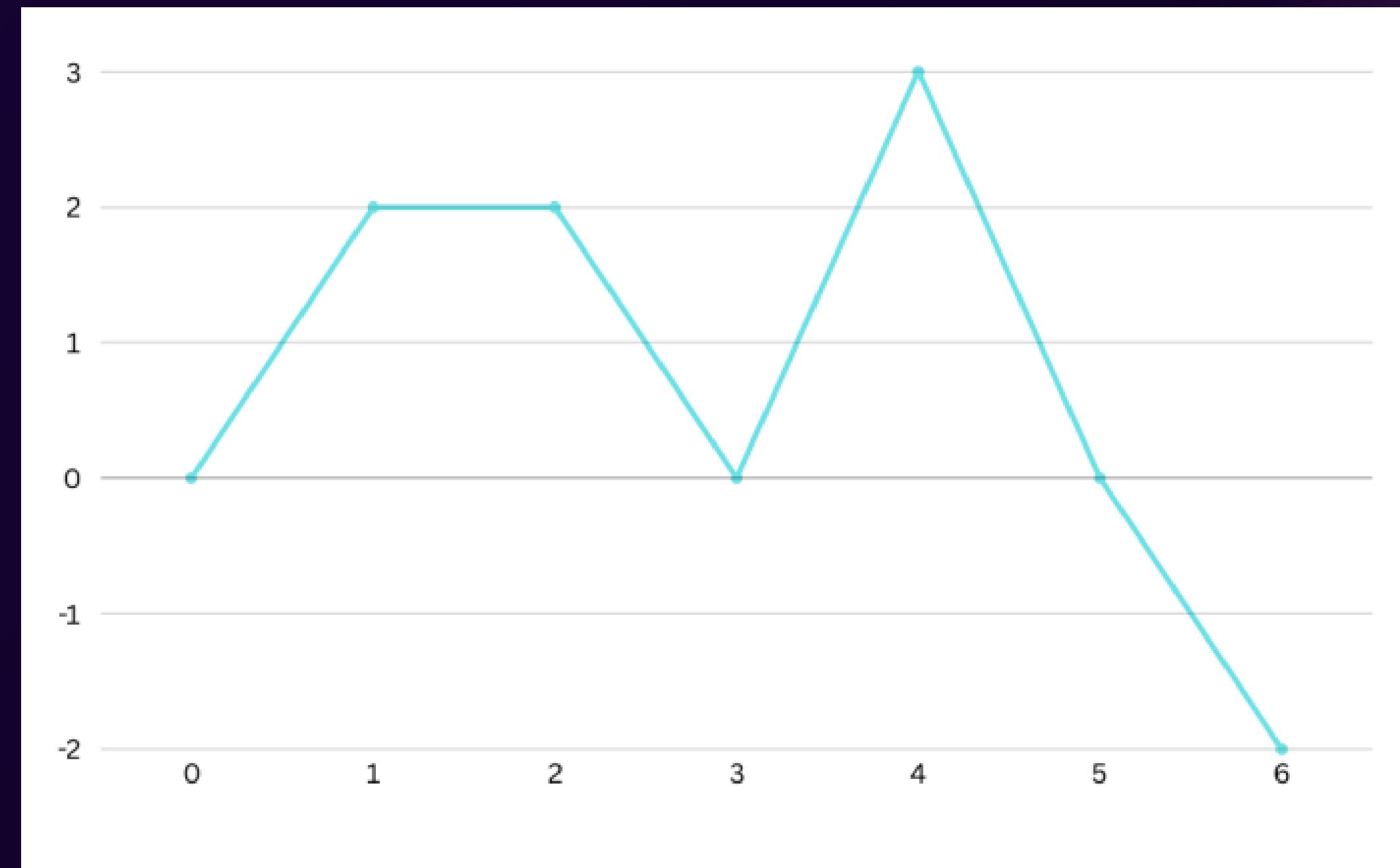
Event 2- Log in to APP

Event 3- High water Use

Event 4- Low electricity Use

Event 5-Solar generated low energy

Event 6-Room temperature was not normal as compare to outside



JOURNEY MAP

Event 1- Homeowner come to know about APP

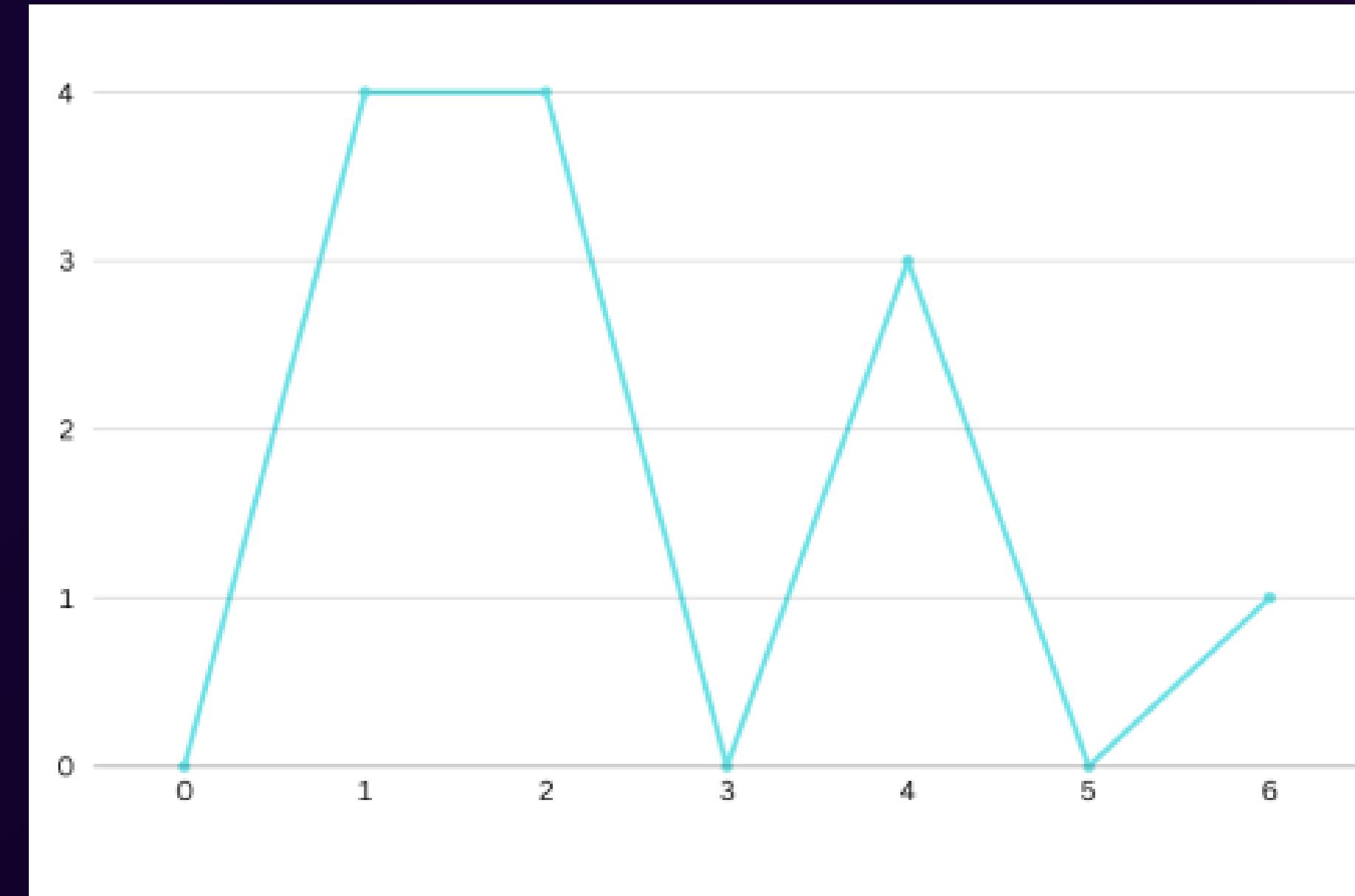
Event 2- Log in to APP

Event 3-Open electricity tracking page - high electricity use

Event 4-Open Water tracking page- low water consumption as compare to last month.

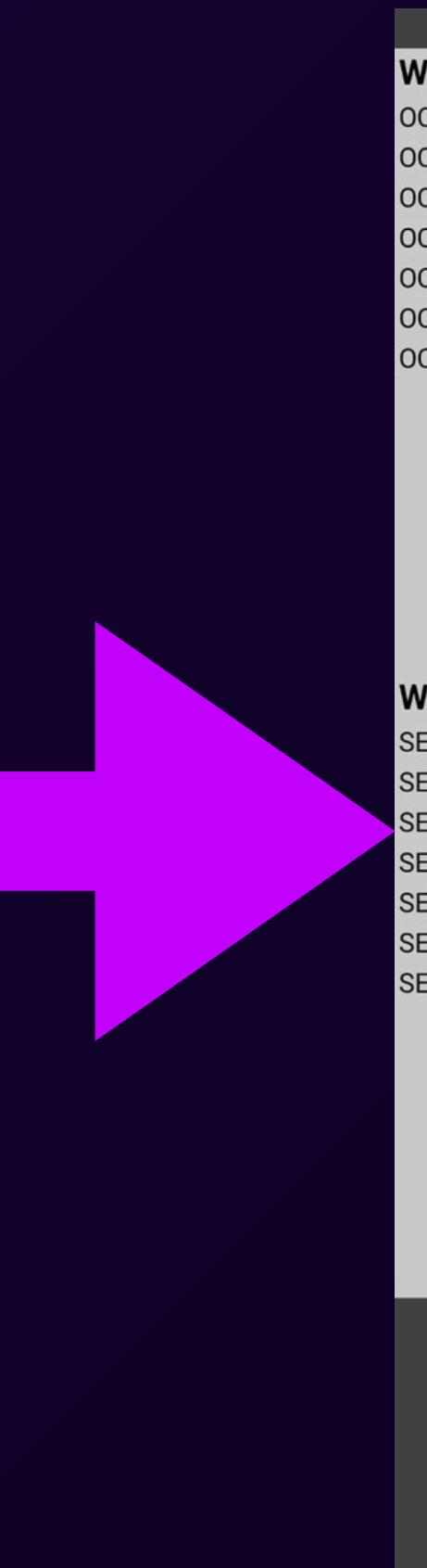
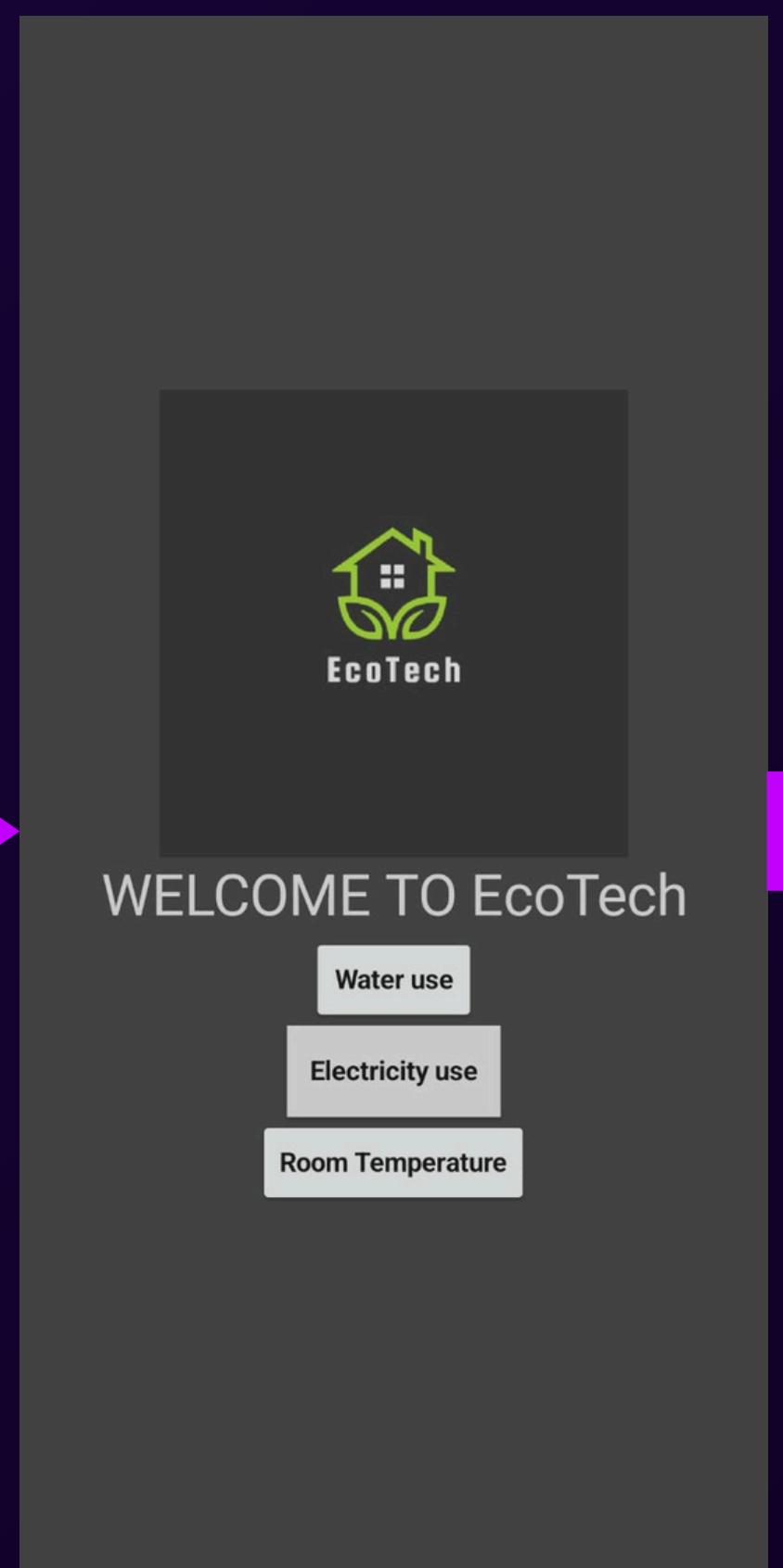
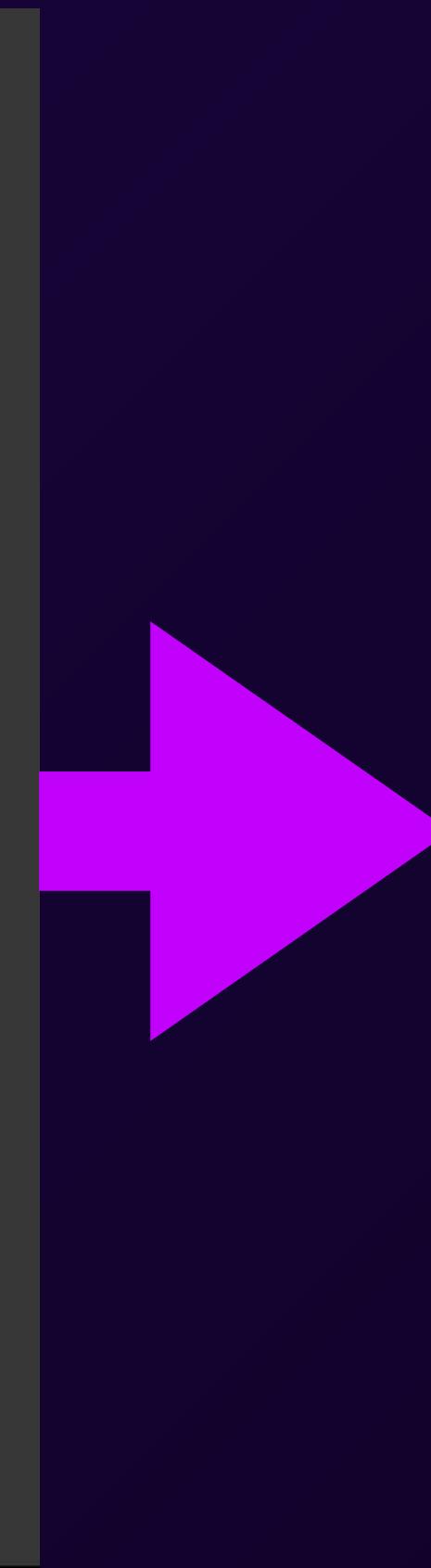
Event 5- Open Graph of solar-generated energy- generated energy was low.

Event 6-Check Temperature of room- It was warm although it was cold outside.



PROTOTYPE

The login screen features a dark gray background with a light gray header bar containing the EcoTech logo. Below the header are two input fields: 'User name' and 'Password', both with placeholder text. At the bottom are two large green buttons labeled 'LOG IN' and 'SIGN UP'.



WATER USE	
WATER USE IN THIS MONTH :	
OCT 21, 2024:	210 L.
OCT 20, 2024:	200 L.
OCT 19, 2024:	207 L.
OCT 18, 2024:	205 L.
OCT 17, 2024:	203 L.
OCT 16, 2024:	205 L.
OCT 15, 2024:	201 L.
WATER USE IN LAST MONTH :	
SEP 1, 2024:	217 L.
SEP 2, 2024:	220 L.
SEP 3, 2024:	215 L.
SEP 4, 2024:	209 L.
SEP 5, 2024:	211 L.
SEP 6, 2024:	216 L.
SEP 7, 2024:	208 L.

PROTOTYPE

Graph View

ELECTRICITY USE:

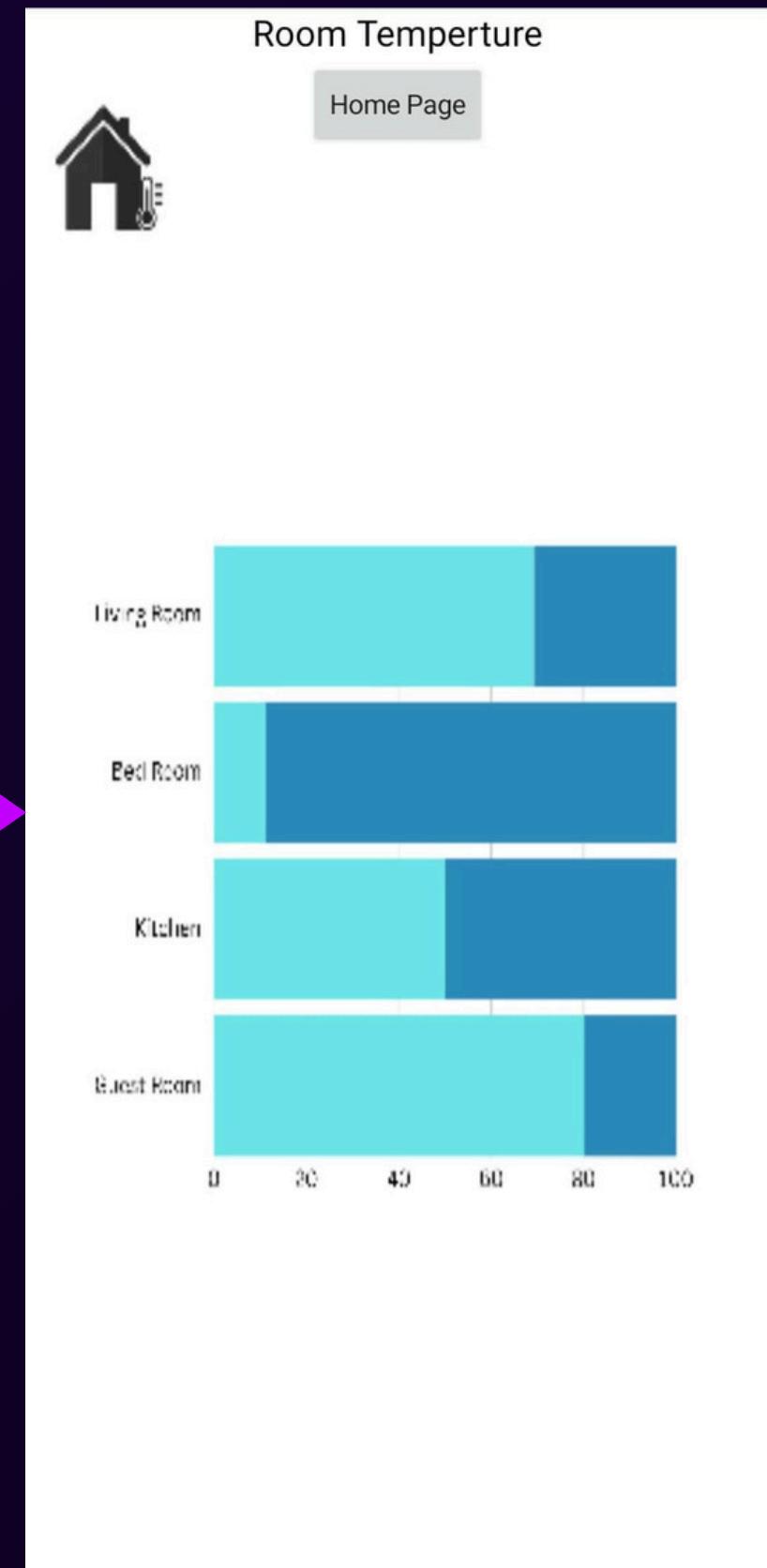
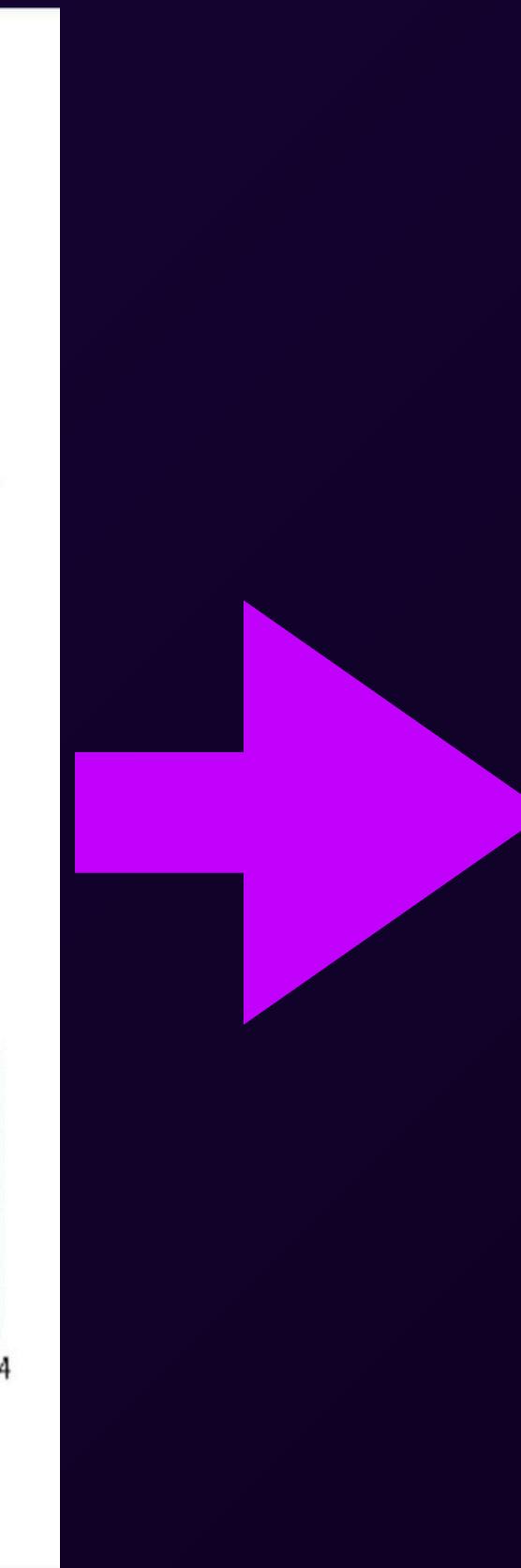
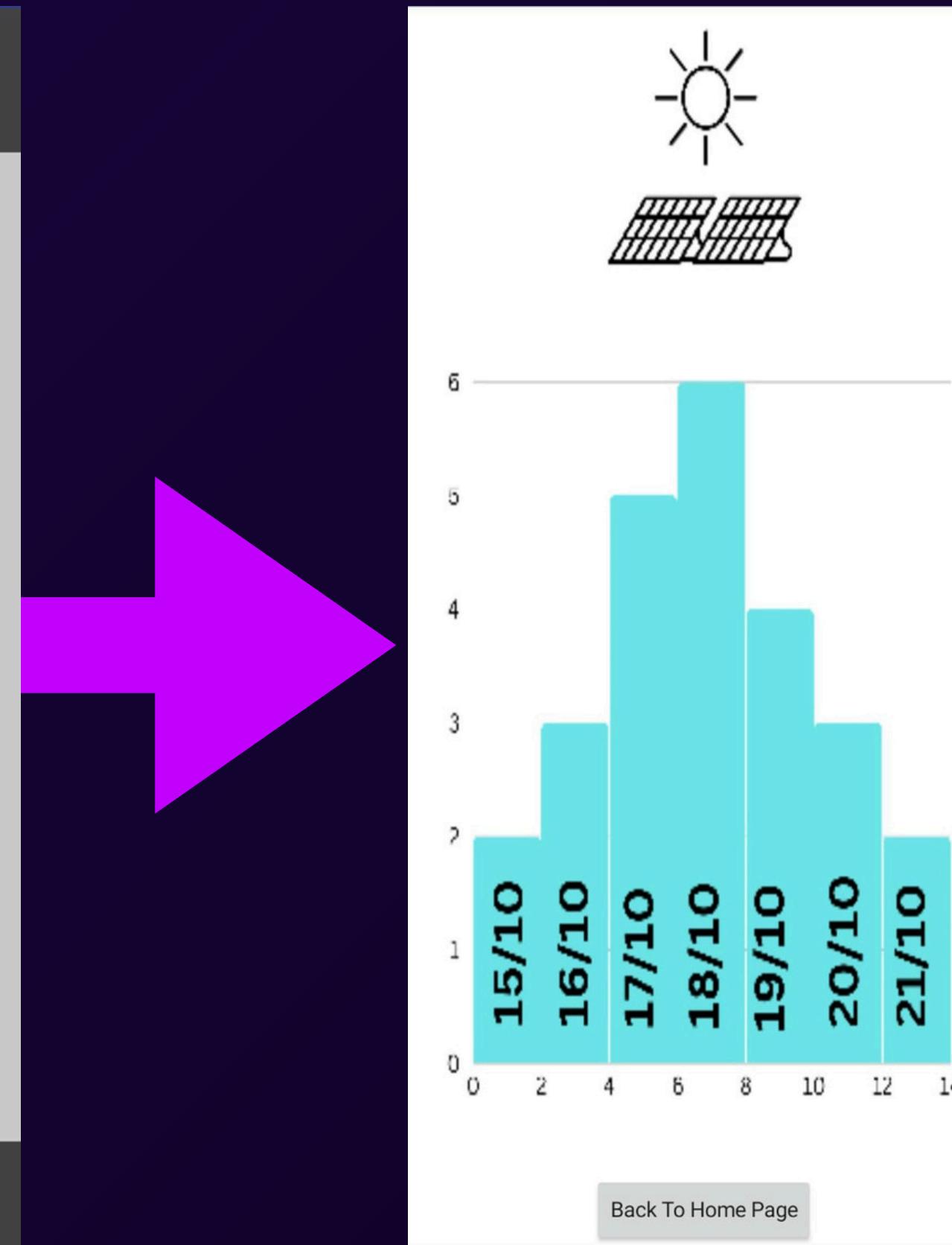
ELECTRICITY USE THIS MONTH:

- OCT 21, 2024: 24 kWh
- OCT 20, 2024: 22 kWh
- OCT 19, 2024: 23 kWh
- OCT 18, 2024: 25 kWh
- OCT 17, 2024: 24 kWh
- OCT 18, 2024: 21 kWh
- OCT 17, 2024: 23 kWh

ELECTRICITY USE LAST MONTH:

- SEP 1, 2024: 26 kWh
- SEP 2, 2024: 25 kWh
- SEP 3, 2024: 27 kWh
- SEP 4, 2024: 25 kWh
- SEP 5, 2024: 23 kWh
- SEP 6, 2024: 24 kWh
- SEP 7, 2024: 22 kWh

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Thank you!