➢IBM_Project_Phase3

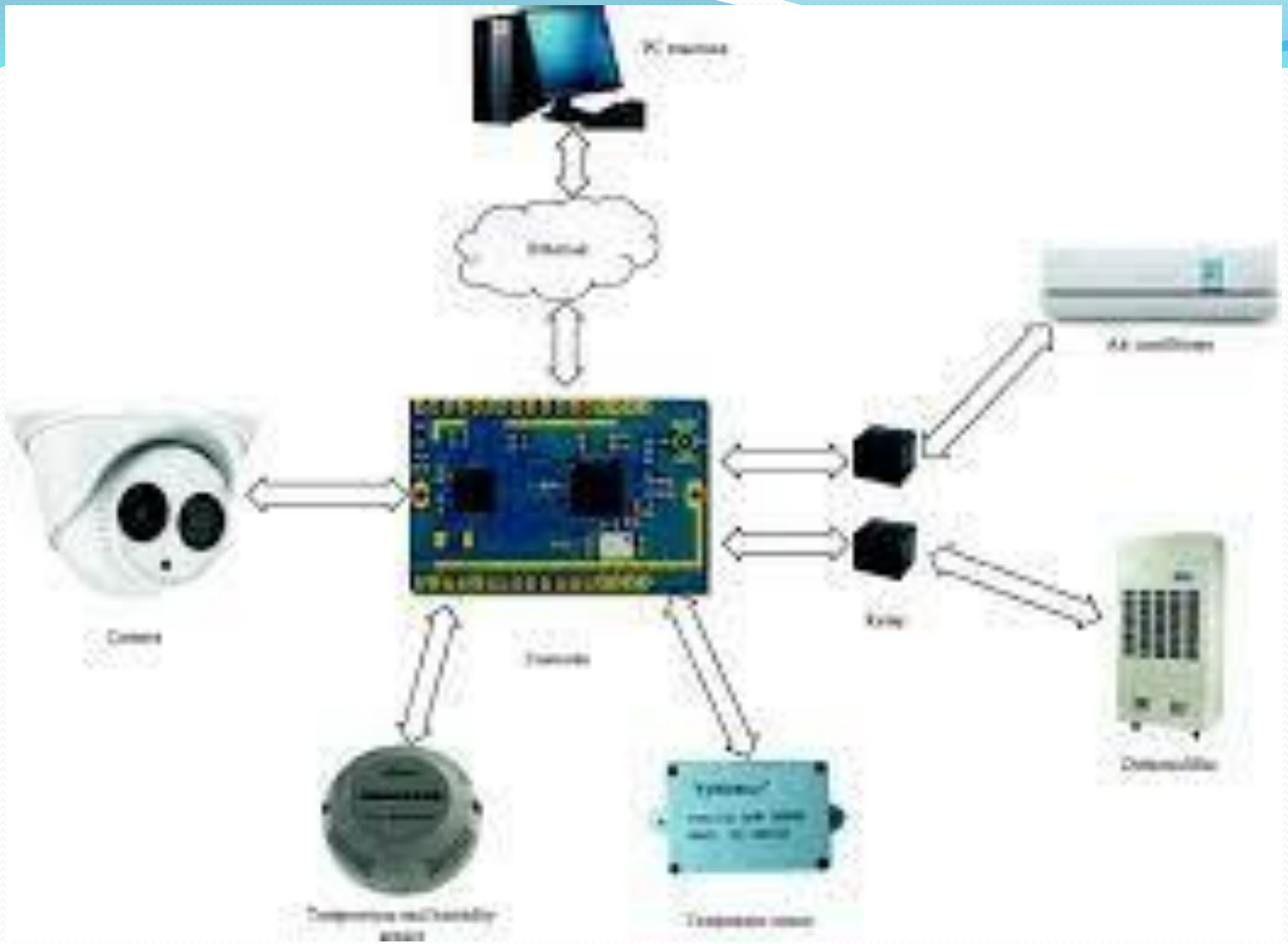
Title: Building an IOT Flood Monitoring and Early Warning System

1. Introduction

- Brief overview of the project.
- Purpose and significance of the flood monitoring system.
- Goals and objectives.

2. Hardware and Sensor Deployment

- Description of the water level sensors chosen.
- Explanation of the IoT hardware used.
- Details on the deployment of sensors in flood-prone areas.
- Considerations for sensor placement and protection.



Wireless Sensior

3. Programming the IOT Sensors

- Overview of the Python script developed for the sensors.
- Code snippets or a summary of the code's key functions.
- Libraries and modules used in the script.
- Steps to install and run the script on the IoT hardware.

Programming language of iot

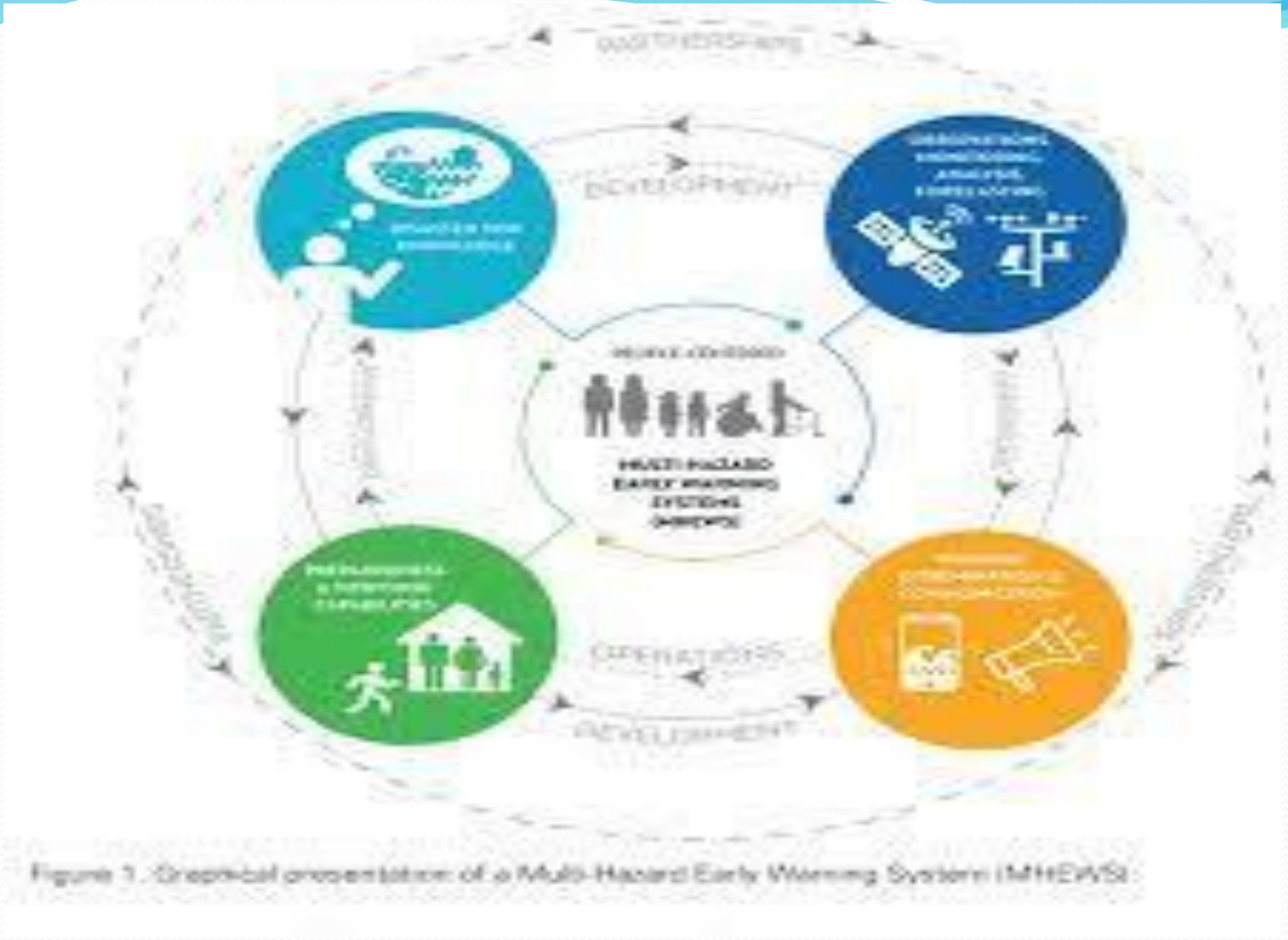
4. Data Transmission

- Explanation of the data transmission methods (e.g., Wi-Fi, cellular, LoRa).
- Details on how the sensor data is formatted for transmission.
- Security measures, if any, for data transmission.

Secure Data

5. Early Warning Platform

- Description of the early warning platform setup (e.g., cloud-based server).
- How the platform receives and processes incoming data.
- Alert system for notifying stakeholders.

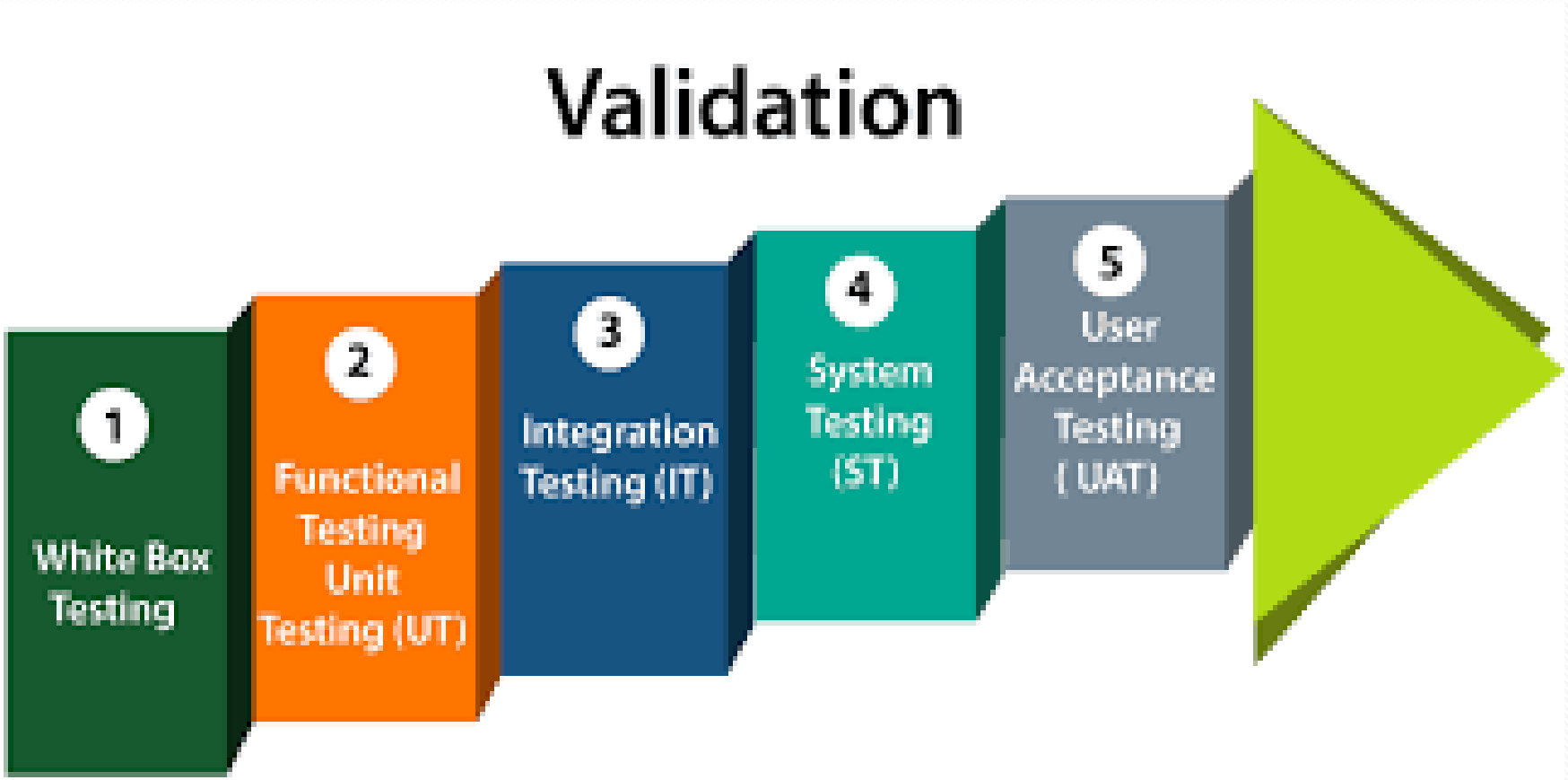


Warning system

6. Testing and Validation

- Steps taken to test the entire system.

- Results of the testing, including data accuracy and system reliability.


Validation
1
White Box Testing
2
Functional Testing Unit Testing (UT)
3
Integration Testing (IT)
4
System Testing (ST)
5
User Acceptance Testing (UAT)

Validation

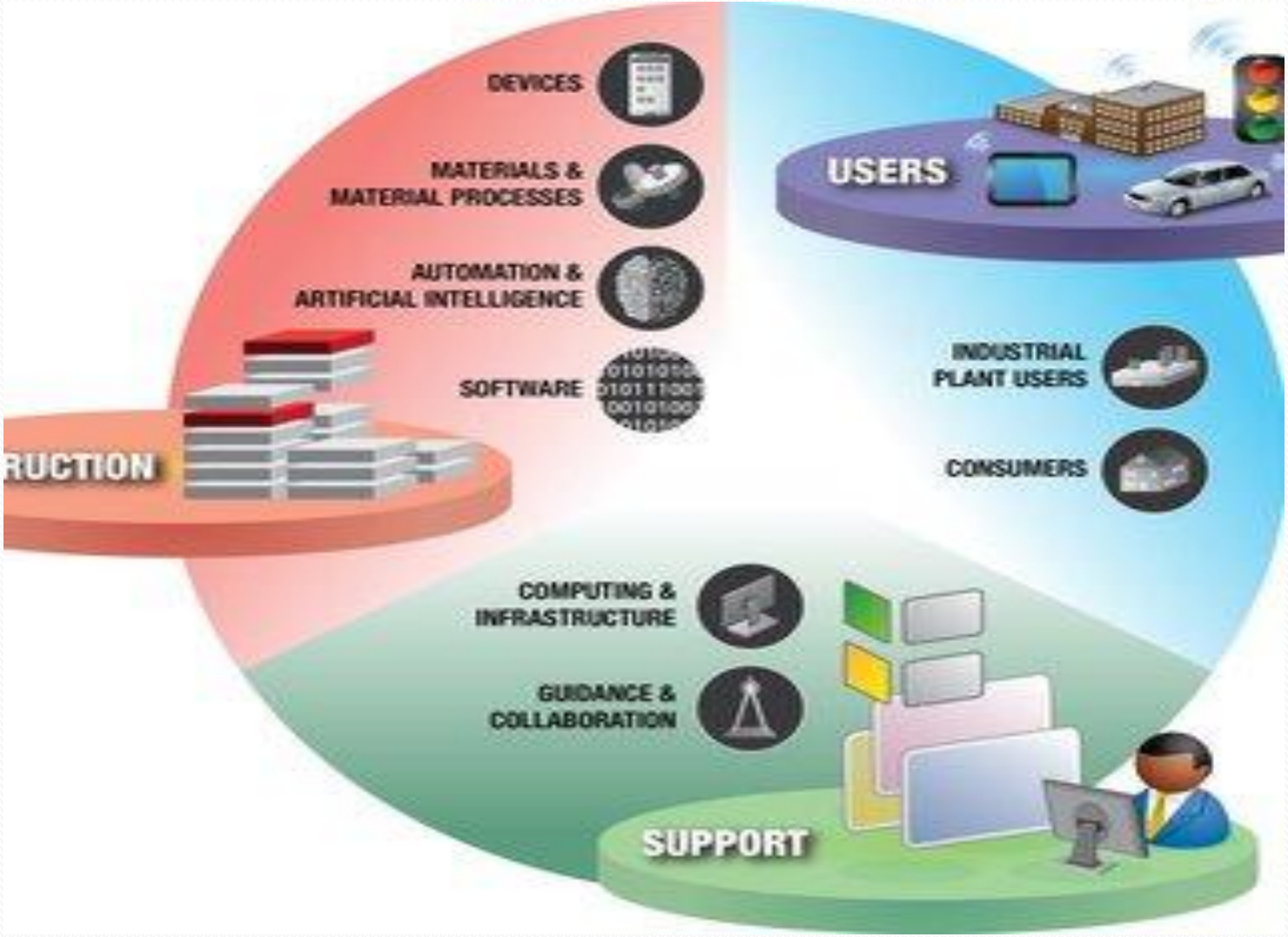
7. Maintenance and Monitoring

- Plans for ongoing maintenance of sensors and hardware.
- Monitoring procedures to ensure the system's continued functionality.

Maintenance and Monitoring

8. Conclusion

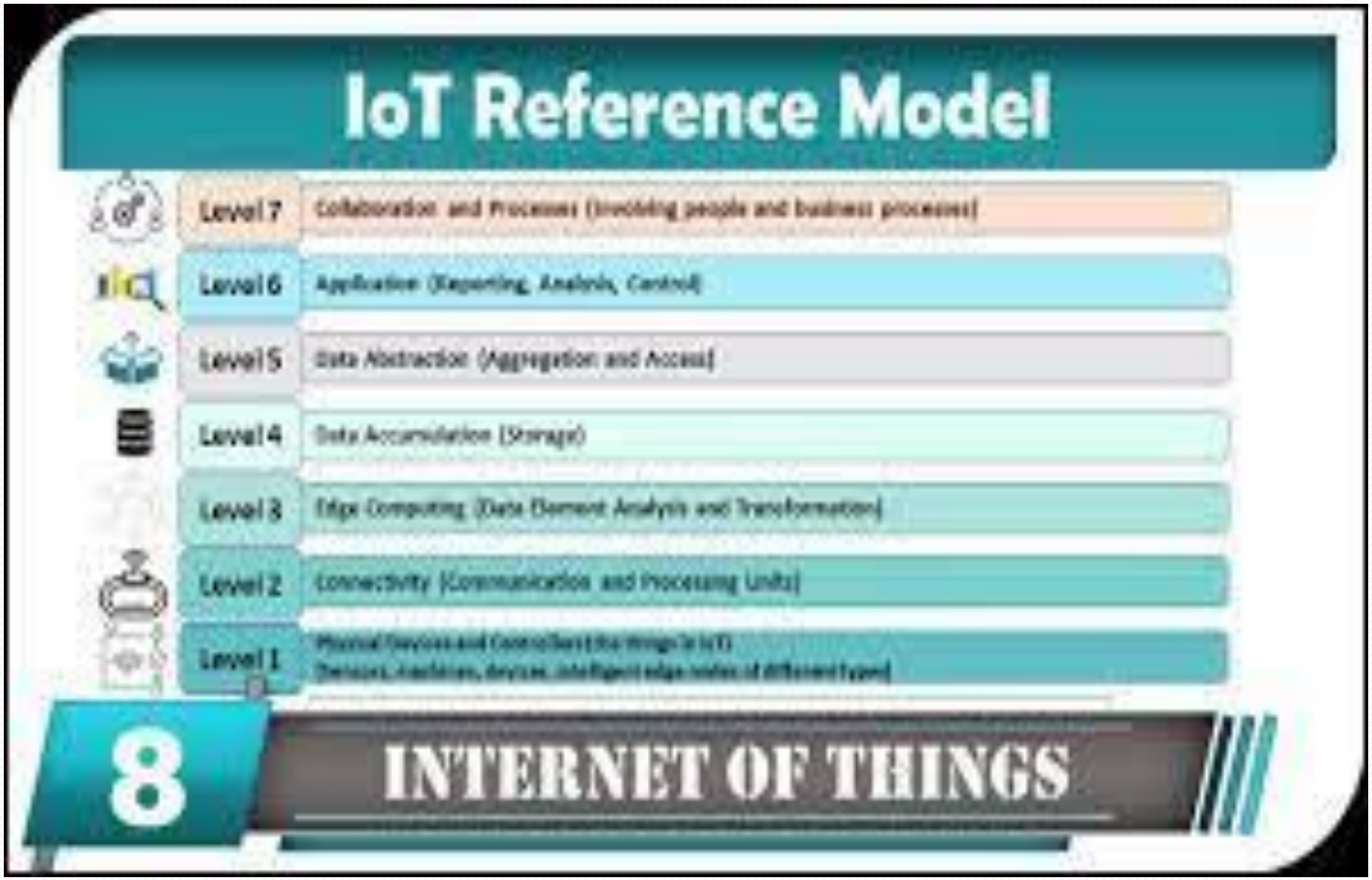
- Summary of the project's accomplishments.
- Potential future improvements or expansions for the system.


DEVICES
MATERIALS &
MATERIAL PROCESSES
AUTOMATION &
ARTIFICIAL INTELLIGENCE
SOFTWARE
RUCTION
USERS
INDUSTRIAL
PLANT USERS
CONSUMERS
COMPUTING &
INFRASTRUCTURE
GUIDANCE &
COLLABORATION
SUPPORT

Conclusion

9. References

- Cite any resources, materials, or documentation used during the project.


IoT Reference Model
Level 7
Level 6
Level 5
Level 4
Level 3
Level 2
Level 1
8
INTERNET OF THINGS

References

10. Appendix

- Include any additional technical details, diagrams, or supplementary materials that may be relevant.
- Remember to adapt this document outline to your specific project's requirements and add more detail to each section as needed. Your actual documentation will depend on the depth and complexity of your IoT flood monitoring system.

THANK YOU !