

URBAN ECOSYSTEM RESILIENCE ARCHITECT

THEORETICAL PART



Context:

You are in Greenhaven, a rapidly growing coastal city known for its dense urban core, historic architecture, and vibrant cultural scene. In recent years, the city has been experiencing the adverse effects of climate change, including stronger hurricanes, rising sea levels, and extreme heat waves. Every summer, record-breaking temperatures cause widespread discomfort, particularly in urban areas dominated by asphalt and concrete. Heavy rainfall and high tides overwhelm the aging drainage systems, resulting in severe flooding that damages infrastructure, displaces residents, and disrupts daily life.

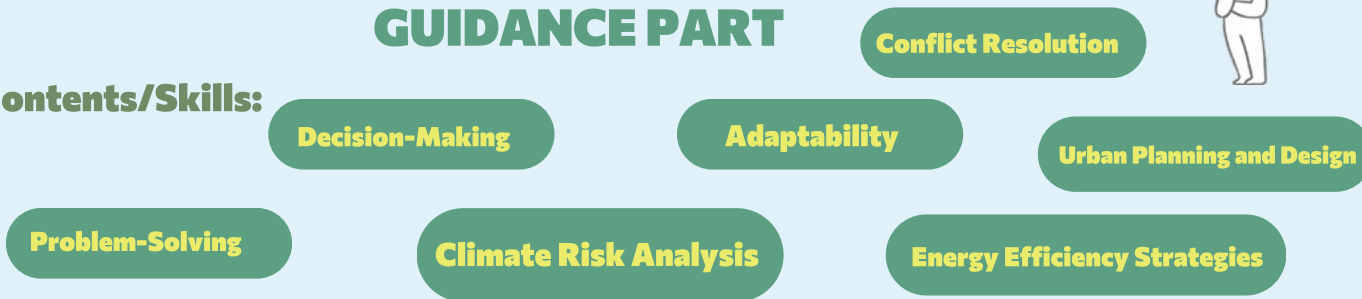
The city faces a dual challenge:

1. Mitigating immediate environmental risks such as flooding, heatwaves, and storm surges.
2. Building long-term resilience by restoring natural ecosystems, upgrading urban infrastructure, and engaging the community in sustainable practices.

The mayor of Greenhaven has assembled a team led by the newly appointed Urban Ecosystem Resilience Architect to develop a comprehensive strategy. As the Resilience Architect, your mission is to design an urban resilience plan that integrates nature-based solutions, innovative infrastructure, and community-driven approaches. Your first task is to conduct an assessment of the city's vulnerabilities and identify key priorities. You must balance diverse stakeholder interests while ensuring that the solutions are practical, scalable, and sustainable. The future of Greenhaven depends on your ability to create a resilient urban ecosystem capable of withstanding the challenges of a changing climate.

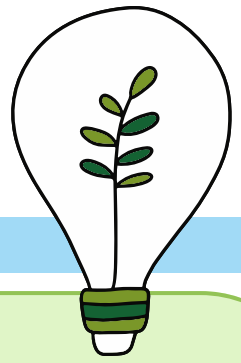
GUIDANCE PART

Related Contents/Skills:



Self-Reflection Questions:

- What are the primary challenges Greenhaven faces due to climate change and environmental degradation?
- What natural resources are still available in Greenhaven, and how can they be leveraged for urban resilience?
- What nature-based solutions could help mitigate flooding and reduce the urban heat island effect?
- How can you effectively engage community members in the resilience planning process?
- What are the key components of a sustainable infrastructure plan that addresses both short-term risks and long-term goals?
- How can you promote awareness and foster a culture of environmental stewardship among the city's residents?



Analysis:

- What is the main problem or need to be addressed?**
- What knowledge and skills are necessary to tackle this situation?**
- What are the strengths and weaknesses of the context in which this problem arises?**

Planning:

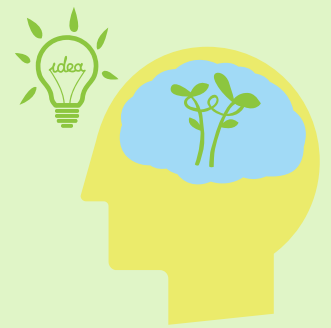
- How can an initial plan be developed to address the identified needs?**
- What material and human resources are available to address the situation?**
- What specific actions should be taken to implement the solution?**

Suggestions and Prevention:

- What suggestions can be offered to execute the proposed solutions?**
- How can risks or potential future problems related to the solution be prevented?**

Evaluation:

- What methods can be used to assess the success and sustainability of the implemented solutions?**
- How will the evaluation be conducted, what instruments will be used, and what variables will be analysed?**



Expected Results after Implementation

What are the expected outcomes after implementing the solutions?
How is the future context expected to look after our intervention?
What suggestions can be made for future applications, maintenance, or performance improvements?

Reflection on Developed Competencies and Project Impact:

What competencies were developed and what is the potential impact of the project?
What difficulties or strengths were identified during the implementation of this EcoJob in a real context?
How is the coherence of the EcoJob analysed, and how suitable is it in relation to the identified need?

