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Role: Project manager

Project manager Role and Responsibilities in Blockchain-Based Energy Trading Project

1. Defining Goals & Scope

- Collaborate with stakeholders to define **project objectives** (e.g., energy savings target, types of appliances to control).

- Determine the **scope** of the system — what appliances, what level of AI, which buildings/homes.

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2. Team Coordination

- Organize a **cross-functional team**:

    - AI/ML engineers

    - IoT/hardware developers

    - Software developers (backend, frontend)

    - UX/UI designers

    - Data scientists

    - Energy domain experts

- Assign roles and ensure smooth **collaboration** across departments.

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3. Planning & Execution

- Develop the **project roadmap**, timelines, and milestones.

- Use Agile or Scrum methodologies to manage development cycles.

- Track progress with tools like **Jira, Trello**, or **Asana**.

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4. Budget & Resource Management

- Estimate costs for hardware (smart appliances, sensors), software, cloud infrastructure, and human resources.

- Ensure the project stays **within budget**.

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5. Risk Management

- Identify and mitigate risks:

    o Security vulnerabilities in IoT devices

    o AI model bias or inaccuracy

    o User resistance to automation

- Prepare **contingency plans** and ensure compliance with regulations (like GDPR for data privacy).

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6. Stakeholder Communication

- Maintain clear communication with:

    o Product owners

    o Utility companies (if applicable)

    o Regulatory bodies

    o Customers/end-users

- Provide **regular updates**, demos, and reports on energy savings and system performance.

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7. Ensuring User-Centred Design

- Coordinate **user research** to ensure that the AI doesn't just save energy, but also aligns with comfort and usability.

- Help guide **UX/UI teams** to build intuitive controls and dashboards.

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8. Monitoring and Evaluation

- Define KPIs (e.g., % reduction in energy use, cost savings, system uptime).

- Ensure thorough **testing and validation** of AI models and control algorithms.

- Oversee **pilot deployments** and collect feedback.

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9. Deployment & Maintenance Planning

- Plan for scaling the system across more devices/homes/buildings.

- Coordinate **training and documentation** for end-users and support teams.

- Prepare for **long-term support**, updates, and system improvement cycles.