**Vision:**  
Headcount allocation is an intuitive and advanced system for managing teams and projects. Its purpose is to provide team managers with intelligent tools for effective human resource and task management. The system enables rapid problem identification, management of complex scenarios, and tailored solutions to streamline daily operations and enhance collaboration between managers and employees.

**The Problem We Aim to Solve:**  
In many teams, project management requires precise alignment between project needs and employee characteristics. Each project is unique in its nature, technical, and operational requirements, necessitating the assignment of the right people to the right tasks.

**Examples of Common Challenges:**

* **Unique Requirement Matching:**  
  Projects involving international teams require employees available during flexible hours, such as night shifts, and fluent in high-level English. Similarly, projects utilizing specific technologies like Python demand employees with expertise in these areas.
* **Handling Sudden Staff Shortages:**  
  Unexpected employee absences due to events like military service, maternity leave, or extended vacations pose significant challenges to teams. Managers often lack optimal solutions to fill the vacancy, potentially affecting project progress and quality.

**Our System's Solution:**

* The system analyzes project and employee characteristics to suggest intelligent matches. For instance, in the event of an absence, it identifies the best candidate for substitution based on criteria such as availability, professional knowledge, and language proficiency, prioritizing criteria according to project needs.
* The system assists team managers in optimally assigning employees while considering the unique requirements of each project and team dynamics.
* It enables managers to visualize team structures and project options for each assignment and alerts them to potential issues in other teams caused by the changes.
* This approach ensures swift and accurate responses to unforeseen problems, enhances operational efficiency, and improves team productivity while saving managers valuable time.

**Stakeholders:**

**Team Managers**

* **Role:** Enter employee and project data, manage task and project progress, and assign employees according to their abilities.
* **Needs from the System:**
  + Clear visualization of team and project status in real-time.
  + Quick identification of operational issues, such as resource shortages and employee availability changes.
  + Efficient problem-solving through tailored recommendations.
  + Automated suggestions for employee assignments.

**Team Members**

* **Role:** Access proposed solutions for team issues and input personal preferences (e.g., language, working hours, task type, and upcoming leave).
* **Needs from the System:**
  + Personal status display within projects.
  + Updated information about team changes and updates.
  + Inputting personal constraints.

**Organization Leadership**

* **Role:** Oversee team and project operations to ensure alignment with organizational goals.
* **Needs from the System:**
  + Access to strategic data such as resource utilization, timeline adherence, and performance metrics.
  + Long-term trend analysis based on system data.
  + Improved organizational efficiency and risk reduction.

**Development Teams (Internal or External)**

* **Role:** Develop, maintain, and improve the system per user and stakeholder requirements.
* **Needs from the System:**
  + Clear specification of requirements, processes, and issues for continuous improvement.
  + Ongoing feedback from team managers and employees for optimal adjustments.

**Software Context:**

**System Purpose:**  
The system aims to provide a centralized platform for team and resource management, enabling real-time issue identification and resolution, resource optimization, and tailored solutions for evolving needs.

**Key Functionality:**

1. **Team and Project Management:**
   * Input employee lists, including personal characteristics (working hours, preferred language, programming language proficiency, availability).
   * Track project statuses, including performance metrics and resource utilization rates.
   * Display an overall status view: active employees, open projects, and current resource utilization.
2. **Issue Management:**
   * Open "tickets" in the system to report problems such as employee absences (leave, military service, etc.).
   * A smart mechanism presenting options to resolve the issue (e.g., available employees matching required traits).
   * Select solutions and display team status after implementing the solution.
3. **Resource Planning and Management:**
   * Assign employees to tasks based on defined criteria (language, programming skills, working hours).
   * Display forecasts and implications for each decision (e.g., how assignments affect other teams and projects).
4. **Advanced Interactive User Interface (UI):**
   * A dashboard displaying real-time data visually.
   * Filtering and customizing information to meet user needs.
   * User-friendly experience for both managers and employees.

**Integrations and Technological Infrastructure:**

* **Infrastructure:** The system relies on modern, cloud-based infrastructure to ensure high availability and data security.
* **Data Security:** Compliance with advanced security standards to ensure data privacy.

**Potential Users:**

* Organizations with dynamic teams requiring real-time adjustments.
* Technology companies, professional services, and projects with fluctuating work cycles.