

**Hackathon Project Phases Template** that ensures students can complete it efficiently while covering all six phases. The template is structured to capture essential information without being time-consuming.

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# Hackathon Project Phases Template

## Project Title:

TRANSLINGUA : AI-powered multiple language translator

## Team Name:

HACK SQUAD

## Team Members:

- BINDU
  - VIJAY KUMAR
  - RAJESH
  - BRAHMANI
  - HARSHA VARDHAN
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## Phase-1: Brainstorming & Ideation

### Objective:

- Translating multiple languages
- Cross language communication , improving travel experience , business expansion , cultural exchange

### Key Points:

1. **Problem Statement:** translating multiple languages using ai powered tool
  2. **Proposed Solution:** large data can be translated at a time with high accuracy
  3. **Target Users:** travellers , business professionals , students , immigrants and anyone who needs to communicate in a language other than their native language , particularly those who frequently interact with people from different cultural backgrounds
  4. **Expected Outcome:** breaks language barriers between people who travel from one place to another
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## Phase-2: Requirement Analysis

### Objective:

- Robust machine , translation machine , accurate text recognition and integration

### Key Points:

1. **Technical Requirements:** html , JS, css
  2. **Functional Requirements:** accurate translation between source and target language
  3. **Constraints & Challenges:** large data cannot be translated accurately sometimes
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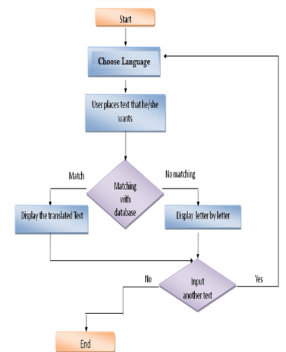
## Phase-3: Project Design

### Objective:

- A user interface for input, a language processing engine that analyse the source language , a translation model to convert the text

### Key Points:

1. **System Architecture Diagram:**
  2. **User Flow:** user input , language detection , selecting target language , text preprocessing , translation , post preprocessing, output
  3. **UI/UX Considerations**
  4. **UI:** easy to find dropdown , clears indicator, allows user to edit the translated text, show available languages , designing with cultural nuances  
**UX:** provides quick access , translation without dealing , ability to paste text , flag translations
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## Phase-4: Project Planning (Agile Methodologies)

### Objective:

- Product backlog creation , sprint planning , initial MVP development, adding more features , contextual features, user texting , launch preparation

### Key Points:

1. **Sprint Planning:** project manager , backend developer, frontend developer, AI / ML engineer , UI/UX designer
2. **Task Allocation:**
  - Project manager: Bindu
  - Backend developer : Brahmani
  - Frontend developer : Vijay kumar
  - AI/ML engineer : Rajesh

- UI/UX designer : Harsha Vardhan
3. **Timeline** : 6 hours
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## Phase-5: Project Development

### Objective:

- Creating an advanced AI powered translation tool that provides accurate real-time translations across multiple languages .

### Key Points:

1. **Technology Stack Used:** Java script , html , my memory API
  2. **Development Process:** creating frontend code by assigning buttons and colour themes and UI interface using my memory API key . The backend contains the logic of the translator.
  3. **Challenges & Fixes:** faced translation errors and fixed them using AI
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## Phase-6: Functional & Performance Testing

### Objective:

- Translation accuracy , user input handling , language detection , user interface , security

### Key Points:

1. **Test Cases Executed:** load testing , scalability testing , stress testing , response times testing , network performance testing
  2. **Bug Fixes & Improvements:** fixed java script errors
  3. **Final Validation:** yes it meets initial requirements
  4. **Deployment (if applicable):** file:///Users/dasariharshavardhan/Desktop/translator\_app-main/index.html
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## Final Submission

1. **Project Report Based on the templates**
  2. **Demo Video (3-5 Minutes)**
  3. **GitHub/Code Repository Link**
  4. **Presentation**
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