

BIS HACKATHON

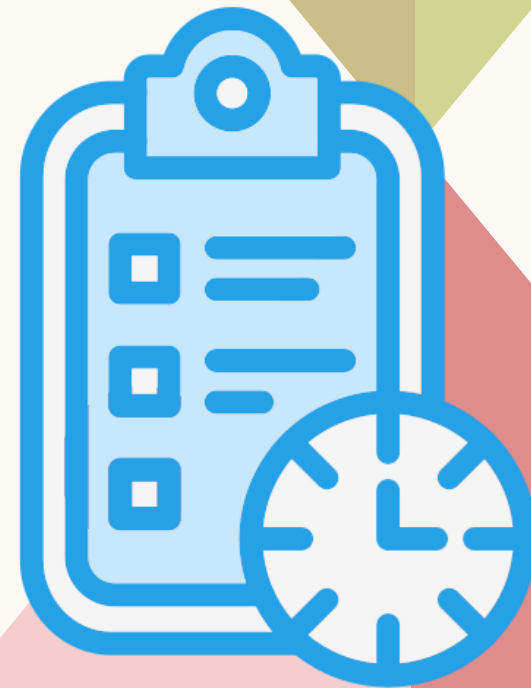
Development of Online Website for BIS Awareness

Team Members

Phargavi S
Reshma N
Ugapriya S

AGENDA

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- Problem statement
- Proposed solution
- Prototype and Illustrations
- Feasibility
- Road map (project plan)
- Impact of the solution
- Technologies used
- Benefits of the solution



INTRODUCTION

- In today's rapidly evolving world, maintaining standards of quality and safety has never been more important. The Bureau of Indian Standards (BIS) plays a pivotal role in this mission, ensuring that products and services meet essential quality benchmarks.
- Our goal with this website is to inform and educate the public about the critical role BIS plays in safeguarding consumer promoting industrial growth, and supporting the national economy.
- Here, you will find valuable resources, guidelines, and updates on BIS certifications, standards, and initiatives aimed at fostering quality consciousness across industries and among consumers.

PROBLEM STATEMENT



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- BIS's role in standardization, certification, and quality assurance is often overlooked in education, especially in non-technical streams.
- To bridge this gap, we are developing a platform that highlights the importance of BIS, helping students understand how standards impact everyday products, services, and industries.
- For this we are creating a platform which emphasize the importance of bureau of Indian standards

PROPOSED SOLUTION

- We aim to create an innovative, interactive online platform featuring engaging activities and games to raise awareness about Indian standards.
- This platform will educate the public, students, and consumers on BIS's role in standardization, conformity assessment, and testing, emphasizing the importance of quality and safety in daily life.



PROTOTYPE AND ILLUSTRATIONS

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Game Concept: "BIS World – Standardization Champions"

This online game could be designed as an interactive, knowledge-based challenge. Participants, including students, consumers, and the general public, take on various roles in ensuring product quality, safety, and standardization. The game focuses on aspects like Standardization, Conformity Assessment, and Testing.

1. Game Structure and Interface

Start Screen

Title: "BIS World – Standardization Champions"

Options:

Play

Learn About BIS (educational section)

Leaderboard

FAQs

Character Selection

Players can choose their role:



- Product Developer: Focuses on ensuring their product meets all standardization criteria.
- BIS Inspector: Goes through various industries to check if their products meet BIS standards.
- Consumer Advocate: Raises awareness among consumers about choosing BIS-certified products.
- Conformity Tester: Runs tests on products and gives conformity certificates.
- Each character has a different goal tied to the activities of BIS. As they progress through levels, they learn more about BIS standards and their real-world applications.
- Main Levels :Each level could simulate real-world scenarios:
- Level 1: Standardization in Action

Players pick a product (e.g., electrical appliance, food item, or toy) and must choose the correct BIS standards for manufacturing and safety.

Objective: Select the right standards before the product goes to market.

- Level 2: Conformity Assessment Race

• Players (as BIS inspectors) need to inspect factories or stores and check if products meet BIS certification. The player faces time-bound challenges to assess conformity.

Objective: Award BIS certification to compliant products or factories.

- **Level 3: Consumer Awareness Campaign:**

In this level, players take on the role of a consumer advocate. They must educate virtual customers about the importance of buying BIS-certified products.

Objective: Create the most engaging digital campaign that reaches the most people.

- **Level 4: Testing Ground:**

Players conduct tests on various products (e.g., testing strength of materials, food safety checks, etc.). They must use BIS-approved methods to pass or reject products.

Objective: Correctly test and approve products before they hit the market.

Mini-Games:

- **Product Testing Puzzle:** A fun drag-and-drop puzzle where players have to match testing tools to products.
- **Conformity Quiz:** Rapid-fire quiz questions on various BIS standards, helping reinforce knowledge in an engaging format.

Features and Interactivity:

- **Leaderboard:** Encourages competition among students, general public, and consumers. Players who score high can be featured here, motivating engagement and awareness.

- **Badges & Rewards:** Players earn badges such as "Standardization Expert," "Conformity Master,"⁹ and "BIS Champion" when they complete specific levels. They can also earn certificates of completion tied to BIS awareness.
- **Educational Pop-Ups:** At various points in the game, brief informative pop-ups will appear. For example, when selecting a standard, the game will provide a brief description of the standard's importance.

Illustrations and Prototypes

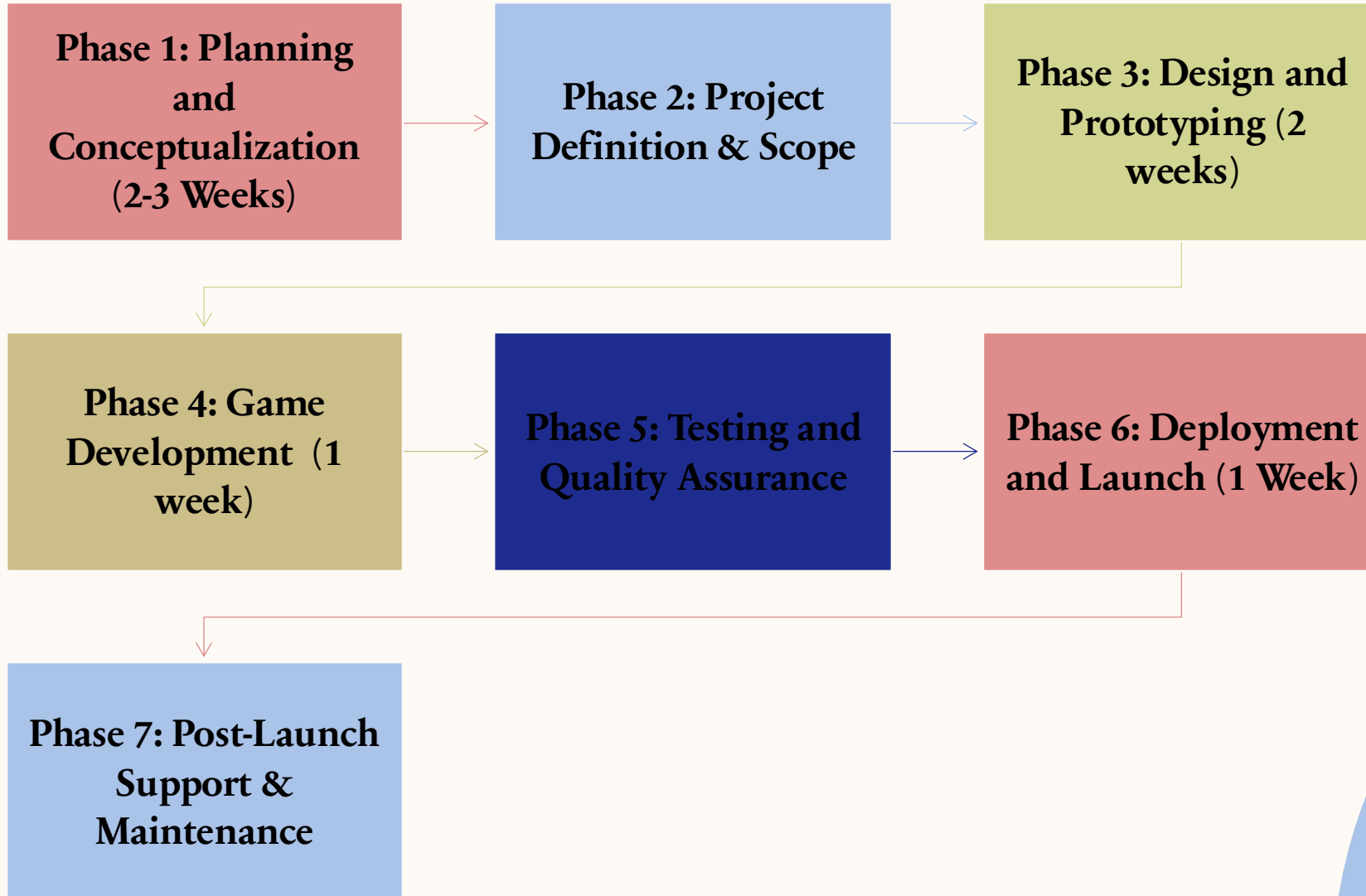
- **Main Interface Concept:** The central map of the game represents a bustling city where each building or factory symbolizes a particular industry. Players can click on the buildings to enter different levels, corresponding to standardization and conformity activities.
- **Character Avatars:** Each character (Product Developer, Inspector, Advocate, Tester) would have fun, animated avatars. Their designs could reflect their roles—e.g., the tester might have a clipboard and safety goggles, the inspector might carry a certification stamp, and the consumer advocate could have a megaphone.
- **Testing Simulation:** In a testing simulation, the player might be in a lab environment where they need to interact with machines, sliders, and dials to simulate real-life testing protocols.

FEASIBILITY

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- ❖ The need for public awareness about BIS is significant, as many consumers and businesses are still **unaware** of the **importance of quality standards** and certifications. A website could be a valuable tool in educating the public, promoting consumer safety, and encouraging industries to adhere to BIS standards.
- ❖ **Broad Reach:** The website would cater consumers, manufacturers, small businesses, and even policymakers.
- ❖ It gives:
 - . **Detailed guides** on BIS certification processes.
 - . Educational content for consumers about the importance of quality standards.
 - . News and updates about BIS initiatives, policies, and changes in standards.
- ❖ **User-friendly Interface:** The website needs a clean, responsive design that works well across different devices (especially mobile phones).
- ❖ **Multilingual Support:** Given India's linguistic diversity, offering the website in multiple languages (Hindi, English, and regional languages) will enhance accessibility.

ROAD MAP



IMPACT OF THE SOLUTION

- Enhanced Consumer Safety
- Reduction in Substandard products
- Increased trust in products and services
- High perception of quality in Indian – Made products
- Prevention of risks associated with using non certified products
- Knowledge sharing and public education
- Reduction in costs for consumers and manufacturers
- Higher adoption of standards across sectors
- Promotion of quality consciousness

TECHNOLOGIES USED

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- Front-End Technologies (User Interface & User Experience) HTML5, CSS3, JavaScript
- Back-End Technologies (Game Logic & Data Handling) Node.js
- Game Development Frameworks and Libraries Phaser.js
- Database & Storage Solutions MongoDB
- User Authentication and Management OAuth 2.0
- API Integration RESTful APIs / GraphQL
- Gamification Tools GameAnalytics / PlayFab
- Hosting & Deployment AWS / Google Cloud / Microsoft Azure
- Testing & Quality Assurance Selenium / Cypress
- Accessibility Tools WAI-ARIA (Web Accessibility Initiative - Accessible Rich Internet Applications)

BENEFITS OF THE SOLUTION

- Consumer Empowerment
- Increased awareness of safety and quality
- Access to reliable information
- Enhanced market credibility
- Easier access to certification
- Reduction of health hazards
- Safety assurance for daily use products
- Support for SMEs and local manufacturers
- Reduced costs from non-compliance
- Eco-Friendly standard awareness
- Multilingual and rural accessibility



**THANK
YOU**

