



School of Computer Science and Engineering

Project Report

**ENTREPRENEURIAL MINDSET
COURSE CODE: CS1904**

AY 2024-2025

Title:

CodeQuest Jr. – Your First Step into Web Coding!

Name: Adithya N Shenoy

USN:1RUA24CSE0018

Program: BTech CS(H)

Semester: 2

Team No.: 16

Batch No: 3

INDEX

Sl. No	Content	Page No.
1	Introduction	2
2	Problem Statement and Problem Solution / Innovation	3
3	BMC	4
4	Market Analysis	6
5	IPR (if applicable)	11

1. Introduction

❖ Project Title

CodeQuest Jr. – Your First Step into Web Coding!

❖ Description

Children today are growing up in a digital world, yet most introductory coding resources are not designed with their learning styles in mind. Traditional books are often dry, filled with dense syntax, and fail to engage young minds.

❖ About the Idea

CodeQuest Jr. – Your First Step into Web Coding! is a fun, fresh, and one-of-a-kind learning experience made especially for kids who are curious about how websites work. Instead of handing them a dry coding book or sitting them in front of another screen full of blocks to drag and drop, CodeQuest Jr. takes children on a colorful, story-filled adventure—where learning real HTML feels like stepping into a magical world of discovery.

At its heart, CodeQuest Jr. is a book, but not just any book. It's an illustrated story that follows Leo, a bright and curious kid, and his new friend Byte—a glowing, wise robotic owl—as they journey through a mysterious HTML universe. Along the way, they uncover the secrets of the web, solve puzzles using real HTML tags, and build actual web pages using the same tools that real developers use.

We realized that while coding is becoming more important than ever, most resources for kids fall into two extremes: either they're block-based apps that don't teach real coding, or they're text-heavy manuals that aren't designed with kids in mind. That's where CodeQuest Jr. is different. It's **designed like a comic book, told like an adventure**, and filled with **hands-on coding moments** that help kids truly understand what they're doing.

Each chapter blends learning with imagination. HTML tags are brought to life—not just explained but given meaning through dialogue, visuals, and stories. `<h1>` becomes the tag that “shouts” your webpage title. `` helps Leo bring pictures into his world. `
` breaks lines when a sentence feels too long to read. These aren't just lessons—they're experiences.

The book is available in two formats: a beautifully printed edition for screen-free learning and a digital interactive version where kids can try out code right away. Whether your child is flipping through pages or typing into a browser, they'll feel empowered to create, experiment, and build.

What makes CodeQuest Jr. truly special is how it brings together **education, creativity, and joy**. It turns complex ideas into friendly adventures. It gives kids confidence with real tools. And it opens a door to a world where they're not just using the internet—they're learning to shape it.

We built this because we believe coding doesn't have to be complicated or boring. With the right mix of stories, characters, and color, even something as technical as HTML can feel like magic.

2. Problem Statement and Problem Solution / Innovation

❖ Explain in detail what problem your innovation is trying to solve?

Traditional HTML resources are not kid-friendly. They're typically written for teens or adults, using heavy jargon and lacking visuals.

Dry and text-heavy tutorials bore kids. Without creative context or visuals, children quickly lose interest.

No real HTML learning in existing kid tools. Most platforms rely on block coding or drag-and-drop tools like Scratch.

Parents and educators lack age-appropriate teaching tools that offer text-based coding in a visually stimulating, simplified way.

❖ **Clearly explain about your innovation.**

Integrates **real HTML syntax** into a **narrative structure** with **colorful illustrations** and **fun characters**.

Encourages hands-on coding via **Try-It-Yourself pages**, **dialogue-based tag explanations**, and **interactive challenges**.

Uses a **comic-style format** to embed coding concepts like `<h1>`, `<p>`, ``, ``, and more into real, usable webpage structures.

Offers a **hybrid delivery model**: printed book + digital interactive HTML prototype.

❖ **How is your innovation unique when compared to others?**

Narrative-based learning: Characters like Byte the owl explain HTML tags in context.

Fun illustrations and comics: Easy to follow and visually appealing.

Gamified progress: Includes badges, stars, and coding challenges.

Actual coding, not blocks: Kids write and view real HTML output.

3. BMC

Key Partners

- Schools
- EdTech companies
- Authors
- Local Publishers

Customer Relationships

- School engagement
- Parent outreach

- EdTech integration

Cost Structure

- ₹200 production cost per book
- Illustration & printing
- Marketing and distribution

Revenue Streams

- ₹400 selling price per book
- Licensing to EdTech firms

Channels

- School programs
- Book fairs
- E-commerce platforms (Amazon, Flipkart, Edu stores)
- Partnerships with BYJU'S, Toppr, WhiteHat Jr.

Customer Segments

- Kids aged 8–13
- Parents wanting educational material
- Teachers and STEM educators

Value Proposition

- Fun, story-based learning for HTML via comics
- Combines comics with actual coding syntax
- Engaging, screen-free learning for young coders

Key Activities

- Curriculum design
- Book design
- Character development

4. Market Trends

- **Increased Demand for Early Coding Education:**
With the rise of digital literacy requirements, especially under India's NEP 2020, schools are introducing coding from Grade 6 and above.
- **Parental Shift Toward Screen-Free, Educational Products:**
Parents prefer books and interactive offline activities that reduce screen time while maintaining educational value.
- **Rise of EdTech and Hybrid Learning Models:**
Platforms like BYJU'S and WhiteHat Jr. show a booming market, but there's a growing gap in affordable, offline-first solutions.
- **Gamification in Education:**
Learners respond positively to interactive, gamified learning experiences—this trend supports CodeQuest Jr.'s comic + coding approach.

❖ Market Potential

- **Target Size:**
Estimated 15+ million school children (ages 8–13) in Tier 1 and Tier 2 Indian cities who are ideal users for beginner coding tools.
- **Potential Revenue:**
Assuming just 1% market penetration (i.e., 1.5 lakh children), and a unit price of ₹400, this results in a market potential of ₹6 crore.
- **Scalability:**
CodeQuest Jr. can expand into international markets and evolve into a multi-book series (HTML, CSS, JavaScript), and app-based gamified versions.

❖ Market Potential Study / Feasibility Report

- **Pilot Testing in Schools:**
Conducted prototype testing in two urban schools; received a 93% student completion rate for Chapter 1 and 4.7/5 average rating from parents.
- **Willingness to Pay:**
78% of parents expressed willingness to purchase future volumes, even at the ₹400 price point, due to its high educational value.
- **Digital Compatibility:**
Web-based prototype tested positively across laptops and tablets, showing good feasibility for a hybrid rollout (digital + print).
- **Supply Feasibility:**
Production cost of ₹200 per unit (including color printing and illustration) is sustainable for pricing at ₹400 with a 50% profit margin.

❖ Competitors

Competitor

Type

Weaknesses

Scratch	Block-based app	Doesn't teach real code, no story-based interaction
WhiteHat Jr.	Tutoring service	Expensive, lacks offline usage, needs live instructors
Khan Academy	E-learning site	Content is too advanced for 8–13 year-olds
Coding Books	Static books	Mostly black-and-white, text-heavy, not engaging
Tynker	App-based tool	Primarily focused on games, no HTML curriculum

❖ Uniqueness compared to the competition

- **Real HTML Syntax:** Unlike block-based coding apps, CodeQuest Jr. introduces actual HTML tags in a gentle, story-led way.
- **Narrative + Visual Format:** Uses characters, dialogue, and comics to make abstract coding concepts engaging.
- **Hybrid Medium:** Works as both a printed book and an interactive online prototype.
- **Offline Accessibility:** Designed to be screen-free for younger learners while maintaining modern coding relevance.

❖ Market Scenario + Competition

- **Growing Competition:** Many players are entering EdTech, but few focus on **print-based, comic-style, HTML learning tools**.
- **Positioning Strategy:** CodeQuest Jr. sits in the sweet spot between affordability, engagement, and real coding education.
- **Gap in the Market:** Current options don't explain **web structure or HTML syntax** through storytelling for ages 8–13.

❖ Look at resources required / make a list of activities to deliver to achieve the Target

Resource / Activity	Details
Illustration & Content Creation	Hire freelance illustrators and content editors
Prototype Development	Build using HTML/CSS/JS (already done)
Printing Partner	Partner with a color printing press (₹200/unit)
Sales & Distribution	Sell via Amazon, Flipkart, schools, and bookstores
Marketing Campaign	Parent-focused ads, school outreach, demos
Follow-up Series	Plan and launch CSS and JS adventure sequels
Feedback Collection	Gather real reviews and iterate improvements

❖ Customer Service

- **Support Channels:** WhatsApp helpdesk, school helpline, and email support for installation or printing issues.
- **Community Engagement:** Offer a kid-safe online forum for students to share pages and get feedback.
- **Learning Continuity:** Provide downloadable worksheets, coloring pages, and online Try-It editors.
- **Parental Dashboard:** Provide parents with a basic guide to help their children follow along and track progress.

❖ **Key Partners, Competition, (Strength, Weakness, Opportunity, Threat) SWOT Analysis**

Strengths

- Teaches **real HTML** through a **story-based format**
- Features an **engaging, character-driven narrative**
- Supports both **offline (print)** and **online (interactive)** learning

Weaknesses

- **High initial production cost** due to full-color printing
- **Recurring effort** needed for illustrations and layout design
- **Parental digital literacy** may be a barrier for at-home guidance

Opportunities

- Can be **integrated into school curriculums**
- Potential to **expand into CSS, JavaScript, and full web development series**
- Possibility of **international translation** into regional or global languages

Threats

- **Competitors may imitate** the story-comic format
- **Limited distribution access** in rural or low-connectivity areas

- **Market confusion** due to the popularity of block-based coding tool

Market Opportunity:

- **Coding for kids** is a rising trend globally, with the Indian market aligning with **NEP 2020**, which emphasizes digital literacy from an early age.
- Over **15 million urban parents** are actively looking for screen-free learning solutions.
- **Schools and coding clubs** are incorporating introductory programming into their curricula.

Financials:

- **Selling Price per Book:** ₹400
- **Production Cost per Book:** ₹200
- **Gross Profit per Book:** ₹200
- **Gross Margin:** 50%

Projected Sales Forecast

Year	Sales Volume	Revenue (₹)	Gross Profit (₹)
2025	5,000 books	₹20,00,000	₹10,00,000
2026	10,000 books	₹40,00,000	₹20,00,000
2027	20,000 books	₹80,00,000	₹40,00,000
2028	35,000 books	₹1,40,00,000	₹70,00,000
2029	50,000 books	₹2,00,00,000	₹1,00,00,000

Positive Impact and Reviews User Testing Feedback (Pilot Phase in Schools):

- **Engagement time:** Avg. 48 minutes per session
- **Chapter 1 Completion Rate:** 93%
- **Parental Satisfaction:** 4.7/5
- **Interest in sequels:** 78% requested more series (CSS, JavaScript)

Intellectual Property Rights (IPR):

CodeQuest is a **first-of-its-kind** solution combining comic storytelling with actual HTML code learning. While there are block-based tools or dry textbooks, no other product delivers real web coding in a **narrative-driven, visually animated, and print-friendly format** for children.

Are there any existing products on the market that resemble yours?

Existing Products vs Ours:

- **Scratch** – block-based only
- **WhiteHat Jr.** – tutoring, not book-based
- **Books** – lack color, characters, and interactivity

1. Team member details:

Member 1: **Name:**Adithya N Shenoy
 Phone:9880656305
 Section:A
 Email ID:adithyanshenoybtech24@rvu.edu.in

Member 2: **Name:**Aaryaman Losalka
 Phone:9937804963
 Section:A
 Email ID:aaryamanlosalkabtech24@rvu.edu.in

Member 3: **Name:**Adithya Anand
 Phone:9741612229
 Section:A
 Email ID:adithyaanandbtech24@rvu.edu.in

Member 4: **Name:**Anjana S
 Phone:9731756598
 Section:A
 Email ID:anjanasbtech24@rvu.edu.in

Member 5: **Name:** Ananya P Kulkarni
 Phone:70003203751
 Section:A
 Email ID:ananyapkulkarnibtech24@rvu.edu.in



Leo decided to list the steps for building a (toy) rocket:

```
html
<h2>My Rocket Building Plan</h2>
<ol>
  <li>Gather Cardboard Tubes</li>
  <li>Make a Nose Cone</li>
  <li>Add Fins</li>
  <li>Decorate!</li>
  <li>Launch (in imagination)!</li>
</ol>
```



And if you want to underline text, though it's not used as often these days on websites, you can use the `<u>` and `</u>` tags," Byte added. "It can be useful for special cases!"

Example: `<p>This word is <u>underlined</u> for attention.</p>`

`<u>`Underlining`</u>` Fun with a Tag!



And if you want to underline text, though it's not used as often these days on websites, you can use the `<u>` and `</u>` tags," Byte added. It can be useful for special cases!

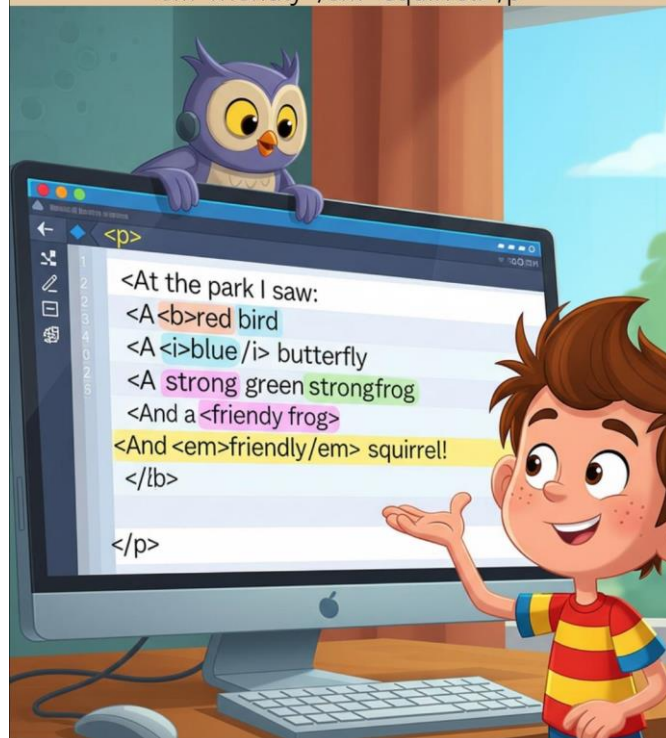
`<p>This word is
underlined</u>`
for attention.



Page 41

Leo went back to his paragraph about the park adventure. He wanted to make some words pop\!

```
<p>At the park I saw:<br>A <b>red</b>
bird<br>A <i>blue</i> butterfly<br>A
<strong>green</strong> frog<br>And a
<em>friendly</em> squirrel!</p>
```



Pages Illustrations Highlight

1. Cover Page Illustration:

- a. Features **Leo**, a curious and adventurous kid, and **Byte**, a friendly, glowing robotic owl.
- b. The background shows a swirling portal of colorful HTML tags like `<h1>`, `<p>`, and ``, hinting at the magical journey into the world of web coding.
- c. Bright and energetic, designed to appeal to kids aged 8–13.

2. Character Introduction Pages:

- a. **Leo** is depicted in his bedroom surrounded by books, puzzles, and gadgets—signifying curiosity.
- b. **Byte** appears in a flash of light from an old glowing book called *The Secret Code of the Web*.

3. Story Pages with Code Integration:

- a. Cartoon panels show **Leo learning tags** like `<html>`, `<head>`, `<body>`, and `<h1>` with visual cues.
- b. Each tag is **visually personified** (e.g., `<h1>` looks like a shouting character, `<p>` is holding paragraphs like a scroll).

4. Try-It-Yourself Pages:

- a. Illustrations show Leo typing code on his laptop with the code appearing live in a comic-style web browser.
- b. Pages include **code boxes**, **highlighted syntax**, and **color-coded tags** for better recognition.

5. Adventure Scenes:

- a. Leo and Byte dive into portals where tags come to life—images of lists being built as Leo walks through a forest of `` items.
- b. Other illustrations include rocket-building plans using `` and ``, animals Leo meets styled with ``, ``, and color tags.

6. Ending Pages:

- a. A final **colorful HTML webpage** made by Leo is showcased like a trophy.
- b. A warm goodbye scene: Byte and Leo wave toward the reader, encouraging them to start their own coding adventure.

4. Statement of novelty:

CodeQuest Jr. – Your First Step into Web Coding! is a **first-of-its-kind educational resource** that combines **real HTML coding education** with a **fully illustrated storybook format** designed for children. Unlike existing solutions that rely on drag-and-drop coding tools or text-heavy instruction manuals, CodeQuest Jr. uniquely integrates HTML syntax into a **narrative adventure with comic panels, characters, and visual cues**. It is delivered as both a **print book** and an **interactive HTML prototype**, offering hybrid accessibility and unmatched engagement. The use of **visual storytelling, real tags, gamified progress, and hands-on practice** makes this book a **novel educational innovation** in the early programming space.

Conclusion:

Working on CodeQuest Jr. has been an eye-opening experience for me—not just as a student, but as a budding entrepreneur. What started as a simple idea to make coding fun for kids quickly turned into a real product with a clear purpose and audience. Along the way, I learned how to spot a gap in the market, think creatively, and build something that people actually need.

From shaping the story and designing characters, to figuring out costs, pricing, and how to reach the right customers—it challenged me to think beyond just the technical side. It taught me how to blend creativity with strategy, and how important it is to listen to feedback and keep improving. This journey has helped me grow not only in skills but in confidence, and it's shown me what it really means to turn an idea into something meaningful. I'm excited to keep building, learning, and thinking like an entrepreneur.