



# ***WEBSTER - 2024***

***TEAM NAME: - D & D***



***TEAM ID: - 797***





# **TEAM MEMBERS :-**

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# **PROBLEM DESCRIPTION**

## ***- SHE KNOWS***

Develop a Campus Scavenger Hunt App that turns your college campus into a playground of discovery. Students or faculty members can sign up to solve clues, explore hidden campus gems, and compete in a time-based scavenger hunt. The app will guide players to various locations based on clues while integrating campus history, student life, and university culture.





# MAP TO RAFTEL

– “Your journey to the  
ultimate treasure begins here”

– “Unlock clues, find Raftel,  
Claim the prize”

– “Where every clue brings you  
closer to the RAFTEL”





# **PROCESS FLOW & FEATURES**

**1. Registration & Login:** Users sign up or log in to access hunts, view points, and manage their profiles.

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**2. Hunt Discovery:** Users explore available hunts (pre-built or user-created), view details, and register as individuals or in teams.

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**3. Hunt Creation & Scheduling:** Users can create custom hunts, set clues, schedule start times, and publish hunts for others to join.

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**4. Team Formation & Collaboration:** For team-based hunts, users join teams and use a shared chat to coordinate. Progress updates are shared in real-time.





# **PROCESS FLOW & FEATURES**

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**5. Starting the Hunt:** At the scheduled start time, the first clue is displayed. Participants solve the clue to find the next location.

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**6. Location Verification & Clue Progression:** Users physically reach landmarks, check their location, and unlock the next clue if correct. Teams progress collectively—one member's success unlocks the clue for all.

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**7. Completion & Scoring:** Upon reaching the final location, points are awarded based on hunt completion. A leaderboard ranks teams.

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**8. Rewards & Redemption:** Points can be redeemed for rewards, like canteen discounts.





# **EXTERNAL LIBRARIES & APIS**

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Frontend: React.js

Backend: Node.js, Express.js

Database: MongoDB

Authentication: JSON Web Tokens (JWT), OAuth

State Management: React-Redux

UI Framework: Material-UI

Location: Google MAP's API

Collaboration: WebSocket



# **CLASS DIAGRAMS**

## **USER**

userID  
userName  
name  
email  
password  
userType

register()  
login()  
viewProfile()  
updateProfile()

## **PLAYER**

playerID  
currentScore  
userID  
teamID

joinHunt()  
viewLeaderboard()  
submitClueAnswer()

## **HUNT**

huntID  
title  
description  
startDate  
endDate  
difficulty  
status

createHunt()  
editHunt()  
deleteHunt()  
getDetail()

## **Achievement**

achievementID  
description  
criteria

grantAchievement()  
viewAchievements()

## **CLUE**

clueID  
description  
hint  
location  
sequenceOrder

addClue()  
editClue()  
deleteClue()  
getClue()

## **LEADERBOARD**

huntID  
playerRanking  
teams

updateLeaderboard()  
viewLeaderboard()

## **TEAM**

teamID  
teamName  
members  
leader

createTeam()  
addMember()  
removeMember()

## **ADMIN**

adminID  
userID

createHunt()  
managePlayer()  
approveHunt()  
viewReports()

## **LocationService**

currentLocation

trackLoation()  
verifyLocation()

## **Notification**

notificationID  
message  
type  
status

sendNotification()  
viewNotification()  
deleteNotification()



THE ONE  
PIECE IS  
REAL



**REACH RAFTEL**