Stages	Question	Use Case: Single Player -Varad Bodhad ,Prasad Bachhav	Multiple Player : Suraj Honmane, Ashish Yadav	LeaderBoard : Lavanya, Vanshika	Games: Bhavesh Patil, Bhargavi Chauhan	Brain Enchancement: Harsh, Varad Sabane	Login: Siddhesh	Mapping	Profile Management				
Vision	What is the big change or positive impact you want your system to create in the world or in your target industry?	These gamestend to revive and modernize the traditional Kathiyapadi game, preserving cultural heritage while creating a game which is not distracting and addictive	Multiplayer interactions across word, puzzle, and number games, making gameplay social, engaging, &competitive	To make learning fun and culturally rich by turning ancient Indian knowledge into an engaging game that boosts brain skills and connects people across ages and languages.	helping people learn and think smarter while enjoying themselves	The big positive impact that will be in the society will be the brain enhancement of the students who are currently learning, and there will be an innovative approach to learning rather than the traditional approach of rembering	To establish a new standard for immersive, culturally-rich interactive entertainment, demonstrating how digital and physical experiences can merge to create deeply engaging challenges and foster a global community around shared discovery.						
	Who will benefit the most from this system?	Students, educators, puzzle lovers, and culture enthusiasts who want to learn and practice Kathiyapadi in a fun way.	Social gamers , competitive players	Players of all ages, especially kids, will benefit the most as the leaderboard motivates them to improve, think faster, and enjoy healthy competition.	puzzle lovers worldwide, cultural enthusiasts, educators	The most who will be benefited from this system will be students.	Casual game players (10+) who love puzzles, unique interactive experiences, and friendly competition. This includes those interested in cultural themes and anyone seeking a truly novel gameplay loop						
	In an ideal future (5–10 years from now), how will your system have changed the way users work/live/behave?	It will make Kathiyapadi widely known and used, blending tradition with modern puzzles so people naturally use it in learning, problem-solving, and cultural games.	Connecting players globally, enhancing engagement & building a strong gaming community.		a go-to game for brain training + cultural learning, Integrated into schools, cultural centers, and online platforms for both entertainment and education	The ideal future of the system will be the everyone who are using the system will able to learn new things and will enchance brain through creative interactive games. And a likely there will be a digital system that will be available on a internet.	It will normalize "DigiPhysical" as a compelling form of entertainment, encouraging users to engage with both digital content and tangible objects as part of a unified game world, fostering a more active and multi-faceted approach to leisure and learning.						
	If your system disappeared tomorrow, what would your users miss the most?	They will miss the unique cultural puzzles, brain-training challenges, and the satisfying progression system.	They will miss real-time multiplayer features, social interactions, and competitive challenges.	They would miss the thrill of seeing their name climb the leaderboard, the motivation to keep improving, and the fun of competing and learning with others in real time.	Users will miss its unique mix of decoding, culture, and fun challenges.	The user will most likely miss the interactive way of learning. And also they will miss the gamified way of learning.	The seamless integration of digital puzzles with physical components (map pieces, lockboxes), the thrill of collecting artifacts, the challenge and fun of the puzzles themselves, the AI hints, and the dynamic competition of the Dynasty Ledger.						
Mision	What specific problem(s) does your system solve?	Lack of fun ways to learn Kathiyapadi and solve puzzles with a self paced tutorial based learning .	Lack of smooth multiplayer functionality, matchmaking, and real-time interactions	It solves the problem of keeping users, especially kids, engaged in a productive, brain-stimulating activity by combining learning, culture, and fun, while the leaderboard adds motivation, healthy competition, and a clear way to track progress	Learning is often boring, heritage-based puzzles are **rare,** Limited awareness of the Katapayadi system	The specific problem that our system solve is brain rotting issue order. The traditional does not help students to learn things or gamify the learning system. Also, it will make screen time productive and least destructive.	Addresses the demand for innovative, multi-dimensional gaming experiences that go beyond traditional digital formats, while providing engaging puzzles and fostering community.						
	How exactly will it solve these problems (key methods, approaches, or technologies)?	Implement smooth online single-player modes with progressive difficulty, hints, and scoring systems.Tech stack: Firebase (for saving progress & leaderboards),	We have to Implement real-time networking, matchmaking, session management, and synchronization . tech stack- WebSockets, Firebase Realtime Database	Gamification with a Leaderboard – to keep players motivated through real-time rankings and rewards.	Fun game modes using decoding, images, stories, riddles, and adventures	Our system solves this issue is via a mapping system where a 0 to 9 numbers are mapped to individual characters in the English alphabet system. And this map are later used to guess the word, image or a tell a story via number, and the user has to guess the words which the questions are asked through the system.	Through a unique DigiPhysical design (integrating physical map fragments, Sutra Unlock boxes), diverse digital puzzles (Katapayadi, etc.), collectible artifacts (Artifact Viewer), competitive leaderboards (Dynasty Ledger), and intelligent AI assistance (Oracle Hints), all within a cohesive, aesthetically pleasing game world.						
	Who are your primary users and what's your scope of service for them?	Students aged 5-12, language learners, heritage enthusiasts, adults wanting solo brain exercise.	Students aged 13+ (As it is Multiplayer)		Primary users would be from age 12 - 30, global audience	The primary user of a system are students, and whoever wants to learn or let's say teenagers and adults who are trying to increase their knowledge as well as reasoning and aptitude.	Casual game players (17+) who enjoy puzzles, collection, competition, and novel interactions. We provide a platform for diverse puzzle challenges, physical object interaction, digital collection and exploration, community ranking, and intelligent in-game support.						
	What principles or values will guide your system's development and decisions?	Traditional learning is boring, puzzle apps lack cultural depth, and most study tools feel like work instead of play.	Reliability, fairness, and smooth user experience.		Smooth accessibility (Easy to use), Playfulness + learning	The principal values that will guide our system are a gamified way of learning and to enhance our brain and to make sure users which are playing our games are enhancing their brain and expanding the knowledge through our gamified learning system.	Innovation in DigiPhysical design, engaging and challenging gameplay, rewarding collection and progression systems, fostering healthy community competition, and leveraging technology (like AI) to enhance the player experience.						
User Research	What types of users do you expect? (List roles, backgrounds, industries, demographics)	Students, teachers, language learners, puzzle enthusiasts, heritage lovers, casual gamers.Age 5+, global audience with an interest in Indian culture, bilingual or multilingual learners, people seeking brain-training activities.	School students, Language learners, Gamers who enjoy puzzles, Adults wanting mental exercise	Players – Children, teens, and young adults pa Team Leaders – Lead group activities in schoo Educators – Teachers or trainers using the lead Parents – Monitor children's performance and Event Organizers – Manage rankings during co	puzzle fans, cultural enthusiasts, educators	The primary user of a system are students, and whoever wants to learn or let's say teenagers and adults who are trying to increase their knowledge as well as reasoning and aptitude.	Players (7+, diverse backgrounds, global, all digital skill levels).						
	What are their main goals related to your system's domain?	Learn and practice Kathiyapadi in a fun, non-academic way. Improve problem-solving, memory, and focus through puzzles.	Play games with friends or strangers in real-time, enjoy collaborative gameplay	Track personal or team performance in real time. Compare results with peers to improve skills. Gain recognition through ranks, badges, and rewards. Encourage continuous participation and learning.	Learn while playing, improve memory, discover culture	Their main goal is to have a gamified system where they can increase the knowledge and enhance their brain capacity.	Quickly and securely access their game progress, collections, and community standing.						
	What frustrations, limitations, or pain points do they face today?	Existing puzzle apps are generic and lack cultural depth.	Traditional learning is boring, Games they play now don't help them learn, Study apps feel like work, not fun	Lack of transparent or accurate scoring in existing systems. Difficulty tracking progress over time. Limited motivation without visible competition or rewards. Leaderboards that are not visually engaging or user-friendly.	Repetitive games, dry learning	The frustration is that they don't have a system where they can gamify learning experience and learn new things. The frustration is that all the games that are present, are not personalised to a specific domain.	Slow logins, complex sign-up processes, security concerns, losing access.						
	How do they currently solve the problem your system addresses?	Use printed books or worksheets for Kathiyapadi learning (limited engagement). Play unrelated puzzle apps like Sudoku, crosswords, or word search (fun but culturally disconnected).	Single-player modes, asynchronous play, or unreliable multiplayer in existing apps.	Manual tracking using score sheets or Excel tables. Simple, static leaderboards without dynamic updates. Basic ranking systems without	Quiz apps, crosswords puzzles, educational YouTube videos.	We have a gamified learning system. So it resolves the issue of getting brain rot. And also, we are trying to build a various domains, so it is not a general, but are domin specific which also addresses the problem.	Using simple passwords (often reused), relying on third-party platform logins, manually tracking game progress elsewhere.						
	Are there any existing systems/tools they use that you want to improve upon?	Generic puzzle/brain training apps (make them culturally themed). Language-learning apps (add interactive game mechanics).	Word Search battle (fun but repetitive), Classic crosswords (fun but not personalized)	Traditional static scoreboards in classrooms, clubs, or events. Basic game ranking lists without badges or personalized identifiers. Simple Excel-based tracking that lacks automation and visual appeal. Generic online leaderboard plugins that do not integrate cultural themes or personalized rewards.	Generic puzzle/brain training apps (make them culturally themed). Language-learning apps (add interactive game mechanics).	There are various gamifide learning system present , but they do not contain a specific knowledge base. It is from the internet, which is not verified, and it is not domain specific, and also, the system doesn't provide enough rewards, which makes its interactive learning experience. Also, it's or does not have a country specific knowledge base. Also, there is no such a game available for the country India as of the current date. This game also includes traditional "Katapayadhi" system.	Standard email/password logins, social platform integrations (make them seamless).						
	How will you collect feedback from potential users (interviews, surveys, observation, analytics, etc.)?	Ingame feedback button, post level , rating prompt,emails/in app surveys	In-game feedback button after few turns of gameplay	Surveys after gameplay sessions to measure satisfaction and gather suggestions. Observation during live games to note user interactions and engagement with the leaderboard. Analytics in the digital version to track rank progression, activity frequency, and badge unlock patterns. Focus groups to test new features like cultural titles, seasonal resets, and team rankings.	In-game survey after 3-4 turns of gameplay , Analytics tracking of game completion rates and hint usage.	We have our mentor which is a teacher. So they will be giving their insights on how the students are currently were learning, and this can help us to give me a better system. And also, we will like to interview some of the students that we know pinpoint and as a developer, we are also a student, so it also helps us to make the system a personalised system. So they can learn	User surveys, analytics on login/signup drop-offs, direct feedback forms.						
User Persona	What's the user's basic profile (age range, profession, location, digital skills level)?	Age 5–30; students, puzzle enthusiasts, and culturally curious individuals; urban/semi-urban; comfortable with digital devices; medium-to-high digital skills.	Age: 13–30	Age Range: 8–15 years (students), 25–45 years (educators/parents), all ages for casual players. Profession: Students, teachers, event coordinators, game enthusiasts. Location: Primarily India for initial roll-out; adaptable for international markets. Digital Skills Level: Ranges from beginner (children, offline players) to advanced (tech-savvy gamers, educators familiar with online tools).	12–40 (core)	There will be more currently, 2 specific user persona. First will be a student whoes age is less 12 and a student whoes the more than 12 and also adult. So they will be a trying to learn various various things through our knowledge base, which is present and the domain that are presented by a system.	12-100 years old, various professions/locations, casual to advanced digital skills, primarily accessing via web browser.						
	What motivates them to use your system?	Enjoyment of puzzles, desire to improve problem-solving skills, cultural learning, personal achievement through scoring and getting rewards.	Rewards and Leaderboard	Desire to see progress and rankings in real time. Recognition through ranks, badges, and rewards. Friendly competition with peers or teams. Opportunity to showcase cultural knowledge and skills	Variety – multiple game modes , curiosity to learn more about the heritage and culture	The motivation will that whatever they are learning will be, a gamified learning. And also, they will be rewarded on basis of their performance and they can share there a rewards and performance via internet or a share option. Also, competitiveness and excitement of puzzle solving.	To start playing, continue progress, access features like the Ledger and Artifacts, and ensure their account is safe.						
	What barriers might stop them from adopting it?	Lack of awareness about the Katapayadi system; initial complexity of decoding; low patience for learning rules.	Poor connectivity, lag, complex onboarding, unreliable matchmaking.	No device access (digital). Low interest if leaderboard is dull or unclea	"too academic" , bloated UI , buggy interface	The barrier that might stop adopting the system might be the country of the knowledge that is present. They may find the rewards less appealing and the reward system a bit less appealing that might resist from adopting this system.	Complex or long sign-up, requiring too much personal info, perceived security risks, inability to recover accounts.						

	What would "success" look like for them after using your system?	Completing multiple game levels, improving decoding speed, mastering cultural stories and references, and achieving high personal scores.	They enjoy using it daily, They feel smarter and more confident over time, They start recognizing and decoding patterns faster.	Higher ranks and badges earned. Recognition from peers/teachers. Improved game and cultural knowledge.	Feeling smarter, learning new facts, Sharing game moments with friends/family	The success they might see is that the gamefied learning helps them to gain knowledge and may also help them to excel in the career and various tests that might be present, and also, they can share the rewards and will prove that they have successfully gained knowledge and the rewards will help them justify it.	Logging in effortlessly and securely on any device, knowing their progress is saved.
	What emotional needs (trust, confidence, ease, status, fun) should the system address?	Fun, challenge, self-confidence, cultural pride, and mental stimulation.	Trust, ease of use, fun, competitive satisfaction	Trust in fair scoring. Confidence in progress. Ease of use. Status through high rank. Fun via visuals and rewards.	Fun, confidence, curiosity, satisfaction	The person who is trying to learn it will gain the confidence and he must find it ease and fun. And also trust the system, so the system can help them understand.	Trust (in security), ease (quick access), confidence (account is safe), fun (getting to the game quickly).
Use Case Identification	What tasks or jobs will your system help users complete?	Decode numbers into words or stories using the Katapayadi system, solve cultural puzzles, progress through game levels.	join multiplayer sessions, matchmaking, play puzzles/word/number games in real-time, chat or react with other players.	Tasks/Jobs: Track scores, view ranks, earn badges, monitor progress.	Help them gain detailed knowledge about Katapayadi system, get learnings from the stories like that of Panchatantra	.So the system will provide a mapping system, and there will be a 3 games that is guess the word guess the story from which there might be a case where the mapping is not just a direct mapping, but a variation of a mapping for the brain enhancement and the questions presenting the knowledge base have not been answered by the user previously and there will be a new set of questions That are being not answered, and the user may have the same knowledge bases for the whole system. But the idea is that the questions are not previously answered and the a mapping is a bit different and competitive from other cases present in the system.	Account creation, logging in, account recovery, potentially linking accounts.
	Which tasks are critical vs. nice-to-have?	Critical: Decoding numbers correctly, completing rounds within time limit. Nice-to-have: Unlocking cultural trivia, earning collectible badges, viewing detailed story backgrounds.	Matchmaking, real-time gameplay, score synchronization.	Real-time rank updates, badge awards, score history.	Nice-to-have: Sharing scores, badges , daily challenges (ranking of users on basis of completion time in the leaderboard)	The task that are critical is that should be a mapping present along with a timer, a leader board system and the ranking system, and also the mapping must be a bit different than the usual mapping, which is already present in the system, and the questions must be not repetitive. It must be from the knowledge base. But the key point is that the users have not previously answered it. That's the the whole idea.	Critical: Create account, Log in. Nice-to-have: Account linking, advanced recovery options.
	Are there any time-sensitive or high-frequency actions users will perform?	Quick decoding in timed rounds; frequent practice sessions to improve skill.	Yes , matchmaking, submitting answers/moves within time limits, and responding quickly to in game challenges are both time sensitive and actions.	Seasonal leaderboards, social sharing.	Checking their high scores and completion times after a turn of the game.	Quick decoding in timed rounds; frequent practice sessions to improve skill.	Logging in (potentially each session), Account creation (initial).
	What happens before, during, and after using your system for a task?	Before: User select game mode and level, reviews mapping reference. During: Decodes the given numbers, submits answers, receives hints if needed. After: Reviews score, receives explanations of correct answers, decides to retry or move to next level.	Before: Players join a lobby, choose a game type, and get matched with others. During & After: They play in real-time with live scores, then see results, rankings, and replay/rematch options.	Updating after each game round. Before/During/After: Before: Player registers (User ID assigned). During: Scores update dynamically. After: Rewards given, results shared.	Before: User opens game, selects mode. During: Plays puzzle, decodes, earns points. After: Sees results, unlocks story or location, saves progress.	While using a system, the, they will select the brain enhancement option. And after the brain enhancement, option has been selected there will be a maps that is already used for other use cases. But this time, the mapping will be a bit different. So let's say there is a virtual we have used a mapping of E to see we have a map 0 to 9. so instead of a direct map for letting 0 to a b or c, there will be a different mapping of the numbers that are used. So if the instead of just giving up a number Number may have a special meaning behind it. So instead of just directly mapping numbers to any character in the alphabet, we will be mapping squre or cube of that number or any equation that is per need . So instead of the regular system, it will be a bit different so while answering it, he have to figure it out in the given time frame and within the given time. after the correctly or incorrectly guess there will be a points basis on it and a after the end of the session, there will be a reward or a leader group, both status based on the questions number of questions and hints the he have used.	Before: User decides to play/return. During: User enters credentials/uses auth method. After: User gains access to game dashboard.
	Are there edge cases or exceptions you must handle?	User runs out of time, skips puzzles without answering, enters invalid inputs, or encounters ambiguous decoding.	Player disconnects, network lag, simultaneous moves, cheating prevention.	Edge Cases: Tie scores, inactive players, incorrect score entries.	play time disruption , incorrect outputs	The exceptions that must be handled that there must be no questions repeated and the knowledge base must be the same and authentic. But the exceptions that get handled are the numbers which are provided to guess. Any image word or a story must be theoretically correct . There must be a same linkage for all the numbers that have been used. There must not be a case where the numbers shown are incorrectly mapped.	Incorrect credentials, forgotten passwords, multiple sign-up attempts with same info, account lockout, compromised accounts.
Mapping the Journey	How do users first discover your system?	Via friend invites or shared leaderboard links.	Via friend invites or shared leaderboard links.	Through game onboarding, event instructions, or app screens	Social media, cultural events	Social media, friendly conversations, internet surfing, Teacher's recommendations.	Marketing, word-of-mouth, app stores, web search.
	What steps do they take to start using it (sign-up, setup, onboarding)?	Download → Sign up (email/Google) → Short tutorial on mapping and decoding → Start first practice puzzle.	Sign up with email/Google account, Short onboarding tutorial showing how mappings work.	Sign-up, set username/avatar, join team (optio	Quick tutorial, pick mode , after some gameplay the invitation to connect google play games account to save the progress.	After logging or playing as a guest mode, he will select a brain enhancement. After that, he will be selecting the type of mapping. He will go to play the games later on that there will be option, whereas he have to select which type of game is that is already present that is guess the word guess the image and tell the story. After that, here will be presented a map and code , to guess, along with the number of hints that are used to play that game along, there will be present a timer and number guess made current answer done or not within the time frame and the option to skip the current question and he wants to guess next. After the end of the game, there will be a LEADER board along with the rewards if he have any gained or not.	Visit site/app, click "Sign Up" or "Login", choose method (email/pass, social), enter info, verify (if needed).
	What's their main workflow when using it?	Select mode → Read reference mapping → Play decoding rounds → Submit answers → Review results → Retry or proceed.	Select a game mode → Read mapping reference → Play rounds → Review results → Continue or quit.	Play → earn points → see rank updates → coll	1. Choose game mode. 2. Receive puzzle (number, image, riddle, map). 3. Solve/guess. 4. Earn score/unlock progress. 5. Replay or move to next challenge.	Select mode → Read reference mapping → Play decoding rounds → Submit answers → Review results → Retry or proceed.	Arrive -> Login -> Access Dashboard -> Play.
	What touchpoints (app screens, notifications, human support, etc.) will they interact with?	App screens (home, reference chart, puzzle screen, results), notifications (daily challenges, streak reminders), optional help section.	Game screens, notifications, leaderboards	Leaderboard screen, badge pop-ups, notificatio	pop-up hints, success/failure notifications, leaderboard, help section.	The app screen will be divided into 3 panel. First will be a map where the mapping is shown next panel will be the actual game along with the number that is present to guess the game and the last column will be the point secured or if whether he wants to continue or share the current standing of his game.	Login/Signup screens, email verification, password reset forms, profile/account settings.
	At which points might they feel confusion, frustration, or delight?	Confusion: Learning Katapayadi mapping for the first time. Frustration: Time running out or making repeated mistakes. Delight: Solving a tough puzzle quickly, unlocking a cultural story, achieving a new high score.	delight -Smooth gameplay, real-time responses, fair scoring	Delight at rank climb, frustration if rank drops,	Confusion (if rules are unclear), delight (unlock), frustration (wrong answers)	If the game is confusing, there will be a hint present ,along withthat we will be giving an option where they can report of the questions if they find thw character are incorrectly mapped. delighted will be a, they will be provided of a map, but that is present so they don't have to remember the mapping all the time. And also, the delightful thing will be there, we'll be able to options to share ranking system.	Confusion: Unclear errors, too many steps. Frustration: Failed logins, complex recovery. Delight: Fast, secure, seamless login.
	How does their interaction end, and what happens next?	End of session → Show final score, unlocked stories/badges → Suggest next challenge or share progress.	Game ends → leaderboard → option to replay or invite friends.	Game ends → leaderboard finalizes → user sh	Score summary, new unlocks, replay option	If the interaction ends, the data will be stored along with the answers currently answered, incorrectly answered and the based on which that will be points given, and they can also review the questions that were present and also, they can share their points along with amongst friend to share that experience.	User is authenticated and redirected to the main game dashboard or last played state.
Knowlege Base	What will be our Knowledge Base for our questions?	Our knowledge base will include the Katapayadi mapping rules, a collection of Indian cultural and historical references, a set of pre-mapped word and story puzzles, and related trivia or explanations for each puzzle.	https://docs.unity3d.com/6000.1/Documentation/Manual/multiplayer-overview.html	Digital Library of India – Archive.org, Indian Culture Portal – indianculture.gov.in	https://whc.unesco.org/en/list/ , Story databases (Panchatantra): https://www.talesofpanchatantra.com/, https://kids.nationalgeographic.com/games/quizzes, https://indianheritage.gov.in/login, https://knowindia.india.gov.in/	The knowledge base that we are thinking nort books that are present or to teach and the textbooks used by the government.	The internal documentation (like docs/blueprint.md, development setup files), potentially a dedicated user-facing FAQ on authentication. **wikipedia** https://www.sahapedia.org/ , https://sites.pitt.edu/~dash/panchatantra.html"
Any chnges as per persona			For personas like Students (13–18 yrs), Casual Gamers (18–30 yrs), and Global Audience, the game uses different mappings (normal - 33(सात) and difficult(Reverse) - 30 (तीसवा)त : 0 ,त : 3)) with varying difficulty levels, but the logic remains the same.	The Game will have a Global Leaderboard showing all users + Category-specific leaderboards that let players filter by Students, Educators, or Casual Gamers for fair comparisons.	**UI Wise** , The game will have different UI for persona of Student and Teacher . For persona of a students, the UI should be bright and playful . For persona of teachers, the UI should be minimalist and contain less distractions. **Logic wise** , Student Gamer prefers fast, competitive modes with leaderboards, Educator values educational, structured modes, Casual Gamer prefers short but meaningful challenges	the appearance of will be different for brain enhancement for all the persona but the core business logic will remain the same	Login system stays SAME (one universal design for security & consistency). After login → personalized dashboards create a sense of uniqueness for each persona (student feels playful, educator feels organized, casual gamer feels competitive).Update: For each persona, add a line under Success Looks Like / Needs: Student Persona: "Dashboard emphasizes badges, streaks, leaderboards." Educator Persona: "Dashboard emphasizes class progress, reporting tools." Casual Gamer Persona: "Dashboard emphasizes global competition and collectibles."

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Vanshika	sanket	Suraj
varad	siddesh	harsh
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	bhavesh	