## 1. Generative Al

#### **Problem 1: Al-based Synthetic Dataset Generator**

**Use Case:** Build a platform that generates synthetic but realistic datasets for machine learning model training while maintaining privacy. Helpful for industries lacking large datasets due to privacy concerns.

#### **Problem 2: Al-Powered Scriptwriter for Content Creators**

**Use Case:** Automate content/scriptwriting for YouTubers, vloggers, and podcasters by taking topics as input and generating complete scripts, reducing manual work.

#### **Problem 3: Al-driven Game Level Designer**

**Use Case:** Create a tool that uses generative AI to design game levels based on player skills and preferences, enabling indie game developers to produce dynamic gameplay.

#### **Problem 4: Al-based Personalized News Generator**

**Use Case:** Develop a system that curates personalized news articles by generating summaries from multiple sources tailored to user preferences.

#### **Problem 5: Al Fashion Designer**

**Use Case:** Build a tool that generates fashion designs based on trends, season, and user preferences, supporting e-commerce and design industries.

## **Problem 6: Al-generated Legal Drafts and Contracts**

**Use Case:** Create a generative AI system that helps businesses and lawyers quickly draft customized contracts and legal documents based on input clauses.

## **Problem 7: Creative Ad Copy Generator**

**Use Case:** Design a system that generates catchy ad copies or marketing content for brands in real-time based on product details and target audience.

## **Problem 8: Al Comic Strip Generator**

**Use Case:** Develop a tool that auto-generates comic strips based on user-provided storylines, offering publishers and creators a fast way to create content.

#### **Problem 9: Al-based Music Remix Generator**

**Use Case:** Build a music tool that automatically generates remixes or mashups of songs based on mood or tempo for content creators and DJs.

#### Problem 10: Al-based Resume Enhancement Tool

**Use Case:** Develop a generative AI tool that refines resumes based on job descriptions, suggesting improvements and rewriting bullet points for better impact.

# 2. Artificial Intelligence

#### **Problem 1: Al-driven Predictive Maintenance for Manufacturing**

**Use Case:** Build a predictive model that monitors machine health in factories and notifies maintenance needs, reducing downtime.

#### **Problem 2: Smart Agricultural Yield Prediction System**

**Use Case:** Use AI to analyze soil, weather, and crop data to predict agricultural yield, helping farmers optimize their output.

#### **Problem 3: Al-based Mental Health Monitoring App**

**Use Case:** Create an AI model that detects early signs of depression or anxiety through speech, text, or facial emotion analysis.

#### **Problem 4: Al-driven Creditworthiness Assessment**

**Use Case:** Develop a model that evaluates creditworthiness based on alternative data like spending habits and digital footprint rather than traditional credit scores.

## **Problem 5: Personalized Learning Path Generator**

**Use Case:** Build an Al system that analyzes student performance and recommends personalized learning content and resources.

#### **Problem 6: Al Model for Fake News Detection**

**Use Case:** Create a model that analyzes news content and verifies its authenticity, helping users and platforms fight misinformation.

## **Problem 7: Al-based Supply Chain Demand Forecasting**

**Use Case:** Build a model that predicts product demand across supply chains to minimize waste and optimize inventory.

# **Problem 8: Al-based Energy Consumption Optimizer**

**Use Case:** Develop a system that predicts energy consumption patterns and suggests optimal usage plans to save costs.

## **Problem 9: Al Traffic Flow Optimizer**

**Use Case:** Create an Al system that analyzes real-time traffic data to control signals and optimize traffic flow in cities.

#### **Problem 10: Al-based Skill Assessment Tool for Recruiters**

**Use Case:** Build an Al model that assesses technical and soft skills based on coding tests, video interviews, and behavioral responses.

# 3. Mobile Application Development

#### **Problem 1: Event Booking & Crowd Management App**

**Use Case:** Design an app that allows event organizers to manage bookings, digital ticketing, and real-time crowd density monitoring.

#### **Problem 2: Al-powered Emergency Response App**

**Use Case:** Develop a mobile app that automatically detects accidents and sends alerts to emergency contacts and nearest hospitals.

#### **Problem 3: Gamified Habit Tracker**

**Use Case:** Build a gamified app that helps users build daily habits like reading, exercising, or meditating, with rewards and leaderboards.

## **Problem 4: Carbon Footprint Calculator App**

**Use Case:** Design an app that calculates the user's daily carbon footprint and suggests ways to reduce environmental impact.

## **Problem 5: Freelance Service Exchange Platform**

**Use Case:** Create a barter system mobile app where freelancers can exchange services without cash transactions.

# **Problem 6: Offline-first Learning App for Rural Areas**

**Use Case:** Develop an app providing downloadable educational content and quizzes that work without internet connectivity.

## Problem 7: Smart Grocery List & Pantry Management App

**Use Case:** Build an app that tracks pantry items, sends reminders before expiry, and auto-generates grocery lists based on consumption.

#### **Problem 8: Digital Identity Verification App**

**Use Case:** Create an app that allows users to verify their digital identity and share it securely for online services.

#### **Problem 9: Mobile App for Community Disaster Management**

**Use Case:** Build an app to enable citizens to report hazards, coordinate evacuation plans, and share safe zones during natural disasters.

#### **Problem 10: Home Workout and Virtual Trainer App**

**Use Case:** Develop a virtual fitness coach that suggests workouts based on user goals, fitness level, and equipment availability.

# 4. Web Application Development

#### **Problem 1: Smart Event Booking and Entry Management System**

**Use Case:** Build a web app that allows users to book event tickets, manage digital check-ins, and track live entry data.

## **Problem 2: Skill Marketplace for College Students**

**Use Case:** Design a web platform where students can list their skills and find paid gigs from startups or peers.

## **Problem 3: Freelancers' Income and Tax Management Platform**

**Use Case:** Create a tool that helps freelancers manage income, generate invoices, and calculate tax liabilities automatically.

#### Problem 4: Real-time Feedback Platform for Events and Conferences

**Use Case:** Develop a system where attendees provide live feedback during events to improve engagement and content quality.

# Problem 5: Online Intellectual Property (IP) Rights Marketplace

**Use Case:** Build a platform where creators can register, license, and sell their IP assets like artwork, music, or patents.

## Problem 6: Blockchain-powered Voting System for Universities

**Use Case:** Develop a secure web voting platform for student elections using blockchain to ensure transparency and authenticity.

#### **Problem 7: Digital Resume Verifier Platform for Recruiters**

**Use Case:** Create a web tool that allows recruiters to verify a candidate's claims through automated background checks.

#### **Problem 8: Inventory Management System for MSMEs**

**Use Case:** Build a cloud-based tool that allows MSMEs to track inventory, generate reports, and get sales predictions.

## **Problem 9: Web Platform for Crowdsourced Social Good Projects**

**Use Case:** Develop a platform connecting volunteers, NGOs, and government bodies to collaborate on local issues.

## Problem 10: Web App for Collaborative Research and Paper Writing

**Use Case:** Create a tool that supports multiple authors in writing, referencing, and formatting research papers together in real time.

## 5. Healthcare

#### **Problem 1: Al-based Early Disease Detection System**

**Use Case:** Build a system that predicts the risk of chronic diseases based on patient health records and wearable data.

## Problem 2: Real-time Remote Patient Monitoring Dashboard

**Use Case:** Develop a platform for doctors to monitor patient vitals remotely and provide timely interventions.

## **Problem 3: Healthcare Cost Comparison Platform**

**Use Case:** Design a web tool that compares healthcare services and treatment costs across hospitals for patients.

# **Problem 4: Medicine Authenticity Verification App**

**Use Case:** Create a mobile app where users scan medicine barcodes to verify authenticity and avoid counterfeit drugs.

## Problem 5: Blockchain-based Medical Record System

**Use Case:** Develop a decentralized system where patient records are securely stored and easily accessible by authorized personnel.

#### **Problem 6: Al Nutrition and Diet Planner App**

**Use Case:** Build an app that generates personalized meal plans based on user health conditions and fitness goals.

#### **Problem 7: AR-assisted Remote Diagnosis Tool**

**Use Case:** Create a tool that allows healthcare professionals to visually diagnose symptoms remotely using AR.

#### **Problem 8: Virtual Health Assistant for Elderly Care**

**Use Case:** Design an AI chatbot that helps elderly patients with medication reminders, appointment bookings, and health tips.

#### Problem 9: Real-time ICU Bed Availability System

**Use Case:** Build a centralized system that shows real-time ICU and ventilator availability across hospitals.

#### **Problem 10: Predictive Healthcare Analytics for Insurance**

**Use Case:** Develop a system that helps insurance companies assess health risks and personalize policies based on patient data.

# 6. SaaS (Software as a Service)

#### Problem 1: SaaS-based Document Collaboration Platform

**Use Case:** Build a cloud tool for multiple teams to edit and collaborate on documents with version control and audit trails.

#### **Problem 2: Automated Video Editing SaaS Tool for Influencers**

**Use Case:** Create a SaaS platform that automatically edits long-form videos into short social media clips with subtitles.

## **Problem 3: SaaS for Smart HR Management in Startups**

**Use Case:** Develop a platform offering smart hiring, leave management, and performance analytics for small businesses.

#### **Problem 4: SaaS-based Virtual Office Environment**

**Use Case:** Create a tool offering virtual meeting rooms, collaborative whiteboards, and project dashboards for remote teams.

#### **Problem 5: Smart SaaS Tool for Personalized Marketing Campaigns**

**Use Case:** Build a marketing platform that uses AI to create personalized campaigns based on customer behavior.

## **Problem 6: SaaS Platform for Subscription Management**

**Use Case:** Develop a SaaS tool that helps businesses track and optimize their subscriptions and SaaS expenditures.

#### **Problem 7: SaaS for Legal Contract Management**

**Use Case:** Build a contract management system that drafts, tracks, and auto-renews contracts, reducing manual overhead.

## Problem 8: SaaS-based Data Privacy Compliance Tool (GDPR, CCPA)

**Use Case:** Create a tool that monitors applications for data privacy compliance and provides actionable reports.

#### **Problem 9: Al-powered Virtual Teaching Assistant SaaS**

**Use Case:** Build a SaaS product that aids teachers in content generation, grading, and student performance tracking.

#### **Problem 10: SaaS for Digital Twin Monitoring in Construction Projects**

**Use Case:** Develop a platform that creates digital twins of construction sites to monitor progress and ensure safety compliance.

# 7. Cybersecurity

## **Problem 1: Al-driven Threat Detection System**

**Use Case:** Build a model that continuously monitors network traffic and detects anomalies indicating cyber threats.

# **Problem 2: Phishing Attack Simulation Tool**

**Use Case:** Create a platform that simulates phishing attacks within organizations to train employees on cybersecurity best practices.

# **Problem 3: Al-based Dark Web Monitoring Tool**

**Use Case:** Develop a tool that scans the dark web for leaks of sensitive organizational data and alerts the team.

#### **Problem 4: Secure Online Exam Proctoring System**

**Use Case:** Build a secure proctoring tool that uses AI to detect suspicious activities during online examinations.

(Continued in the next message due to length...)

Let me know if you'd like to continue with the **remaining Cybersecurity and Web3 sections** or if you'd like this in a document format.

#### You said:

yes

#### ChatGPT said:

Thank you! Here's the continuation of the **fresh and documented problem statements with use cases** for the remaining two domains:

# 7. Cybersecurity (Continued)

## **Problem 5: Automated Compliance Checker for Websites and Apps**

**Use Case:** Build a tool that scans websites/apps to check security protocols, privacy policies, and compliance with global data protection laws.

## **Problem 6: Decentralized Password Manager**

**Use Case:** Create a blockchain-based password manager where users store their passwords securely without relying on centralized servers.

# Problem 7: Al-powered Fake Profile Detector for Social Media

**Use Case:** Develop a system that identifies bots and fake profiles on social media platforms to protect user authenticity.

## **Problem 8: Cyber Incident Response Simulation Platform**

**Use Case:** Create a simulation tool that allows companies to run mock cyber-attack drills and train their incident response teams.

# **Problem 9: IoT Device Vulnerability Scanner**

**Use Case:** Build a cybersecurity tool that scans home or office IoT devices to detect vulnerabilities and suggest fixes.

#### Problem 10: End-to-End Encrypted File Sharing Platform

**Use Case:** Develop a platform that allows businesses to share files securely with complete encryption and expiration controls.

#### 8. Web 3.0 / Blockchain

#### **Problem 1: NFT-based Digital Certificate Issuance Platform**

**Use Case:** Build a platform that issues academic, professional, or event certificates as NFTs, making them tamper-proof and verifiable.

#### **Problem 2: Decentralized Freelancing Marketplace**

**Use Case:** Create a Web3 platform where freelancers get paid directly in crypto, avoiding platform commissions and middlemen.

#### **Problem 3: Blockchain-based Supply Chain Transparency System**

**Use Case:** Develop a tool that allows businesses and consumers to trace product journeys and verify ethical sourcing on the blockchain.

# Problem 4: Decentralized Autonomous Organization (DAO) for Community Funding

**Use Case:** Create a platform that allows communities to pool funds and vote on projects democratically using a DAO.

#### Problem 5: Blockchain-based Real Estate Tokenization Platform

**Use Case:** Build a platform where properties can be tokenized and traded in smaller units, improving liquidity and access.

## Problem 6: Web3-powered Secure Digital Identity System

**Use Case:** Develop a decentralized digital ID system that users control and share access to when required for KYC, voting, etc.

## Problem 7: Blockchain-based Carbon Credit Marketplace

**Use Case:** Create a marketplace where companies trade carbon credits on the blockchain for transparency and accountability.

# **Problem 8: Decentralized Data Marketplace**

**Use Case:** Build a platform where individuals can sell their data directly to companies or researchers, earning tokens while maintaining privacy.

## **Problem 9: NFT-based Event Ticketing Platform**

**Use Case:** Develop a Web3 ticketing platform that issues tickets as NFTs, reducing scalping and counterfeiting risks.

## Problem 10: Blockchain-powered Peer-to-Peer Lending Platform

**Use Case:** Create a decentralized finance (DeFi) app where users can lend or borrow cryptocurrency directly without intermediaries.

# Summary & Highlights:

Domain	No. c Problems	of	Coverage
Generative AI	10		Dataset generation, content creation, music, legal drafts
Artificial Intelligence	10		Healthcare, education, supply chain, credit scoring
Mobile Application	10		Emergency apps, gamified tracking, offline learning
Web Application	10		Skill platforms, e-voting, event management
Healthcare	10		Remote monitoring, AR diagnosis, blockchain records
SaaS	10		Virtual office, legal SaaS, marketing Al
Cybersecurity	10		Dark web, phishing simulations, IoT vulnerability
Web3.0 / Blockchain	10		NFTs, DAOs, DeFi lending, carbon trading

✓ Total Problem Statements: 80✓ Each with Real-world Use Cases