**EcoVision User Journey Guide**

PoC/Working Demo

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# **Preface**

This document is designed to provide clear instructions and insights to the Figma developer about the user journey within EcoVision, a sustainable software development tool. It aims to outline the steps users will take when engaging with EcoVision and to offer guidance on creating a visually appealing and intuitive interface that enhances the user experience.

**Introduction:** EcoVision is an innovative software solution designed to monitor, analyze, and optimize the environmental impact of software development processes. By integrating real-time monitoring, predictive analytics, and optimization recommendations, EcoVision empowers development teams to reduce carbon emissions, energy consumption, and resource usage, contributing to environmental sustainability and corporate responsibility goals.

**Prerequisites:**

1. **Access to the EcoVision Platform:** Users must have access to the EcoVision platform to utilize its features and functionalities. Access credentials, including username and password, are required for logging into the platform.
2. **Supported Development Environment:** EcoVision is compatible with various development environments, including integrated development environments (IDEs) such as Visual Studio, PyCharm, and Eclipse. Users must have access to a supported IDE for integrating EcoVision into their software development workflow.
3. **Python Programming Knowledge:** As EcoVision provides optimization recommendations and insights for Python code, users should have proficiency in Python programming. Knowledge of Python syntax, data structures, and programming concepts is essential for understanding and implementing EcoVision's recommendations.
4. **Internet Connectivity:** Users must have a stable internet connection to access the EcoVision platform, download necessary plugins or packages, and interact with cloud-based services for data analysis and reporting.
5. **System Requirements:** Users' systems should meet the minimum system requirements for running EcoVision and its associated plugins or extensions. These requirements may include minimum hardware specifications (e.g., CPU, RAM) and supported operating systems (e.g., Windows, macOS, Linux).
6. **Registration and Authentication:** Prior to accessing the EcoVision platform, users need to register for an account and authenticate their credentials. Registration typically involves providing an email address, creating a password, and verifying account ownership through email verification or multi-factor authentication.
7. **Installation of EcoVision Plugins:** Users may need to install EcoVision plugins or extensions for seamless integration with their development environment. These plugins facilitate real-time monitoring, dynamic code profiling, and optimization recommendations within the IDE.
8. **Training and Onboarding:** EcoVision users, especially developers and data scientists, may benefit from training and onboarding sessions to familiarize themselves with the platform's features, workflows, and best practices. Training resources, tutorials, and documentation should be made available to support users in leveraging EcoVision effectively.

# **Key Features:**

1. Dynamic Code Profiling: EcoVision dynamically analyzes code execution at runtime to gather performance data such as CPU utilization, memory usage, and network activity.
2. Real-time Monitoring: EcoVision interacts with system APIs to monitor environmental metrics in real-time, including CPU utilization, power consumption, and carbon emissions.
3. Optimization Recommendations: Based on the collected data, EcoVision identifies performance bottlenecks and inefficiencies, providing optimization recommendations to reduce resource consumption and carbon footprint.
4. Machine Learning Integration: EcoVision leverages machine learning algorithms, such as Random Forest Regression, to predict the environmental impact of code changes and provide tailored optimization suggestions.
5. ESG Reporting: EcoVision generates comprehensive reports on environmental, social, and governance (ESG) metrics, enabling organizations to track sustainability performance and compliance with regulatory requirements.

# **User Journey: Landing Page**

1. **Hero Section: - Build your own Sustainability Business case**
   * A stunning visual backdrop featuring eco-friendly imagery, such as lush green landscapes or renewable energy sources, to evoke the platform's environmental focus.
   * At the top of the page, a visually striking hero section welcomes me with a compelling headline that encapsulates EcoVision's purpose. Something like: "Transforming Code for a Sustainable Future."
   * Engaging messaging that highlights EcoVision's mission and benefits, inspiring users to take action towards sustainability.
   * Clear call-to-action buttons prompting users to log in or sign up, strategically positioned for easy access.
2. **Introduction to EcoVision:**
   * Below the hero section, a brief introduction provides an overview of EcoVision's key features and benefits. Concise bullet points or a short paragraph highlight EcoVision's ability to analyze code for carbon footprint and provide optimization recommendations.
3. **Call-to-Action (CTA):**
   * A prominent call-to-action button encourages me to take the next step, such as signing up for a free trial or exploring the platform further. The button text could be something like "Start Your Sustainable Coding Journey" or "Learn More About EcoVision."
4. **Features Showcase:**
   * A visually appealing section showcases EcoVision's main features and functionalities through interactive elements, icons, or illustrations. Each feature is accompanied by a brief description or tagline to emphasize its importance.
5. **Customer Testimonials:**
   * Testimonials from satisfied users or organizations lend credibility to EcoVision and highlight its effectiveness in promoting sustainable coding practices. Brief quotes or snippets from testimonials add social proof and encourage me to trust the platform.
6. **Benefits Section:**
   * An overview of the benefits of using EcoVision is presented in a clear and concise manner. This section outlines how EcoVision can help me reduce carbon emissions, improve code efficiency, and contribute to environmental sustainability.
7. **Resource Links:**
   * Links to additional resources, such as case studies, whitepapers, and blog articles, provide further information and insights into EcoVision's capabilities. These resources help me understand the platform's value proposition in more detail.
8. **Footer Navigation:**
   * A well-organized footer navigation menu allows me to easily access other sections of the EcoVision website, including pricing, FAQs, and contact information. Social media links enable me to connect with EcoVision on various platforms.
9. **Login Page Integration:**
   * Seamlessly integrated beneath the hero section, the login page maintains visual continuity while offering practical functionality.
   * Clean and intuitive login form with fields for username/email and password, accompanied by a prominent login button.
   * Additional options for user registration or password recovery, ensuring accessibility for both new and returning users.
10. **Entering Infrastructure Details**
    * Navigate to the form for entering infrastructure details by selecting the "Enter Infrastructure Details" option from the main menu.
    * Fill out the form fields for current infrastructure information:
    * Operating System (OS): Select the operating system used in the current environment (e.g., Windows, Linux, macOS).
    * Middleware: Specify any middleware or additional software components integrated into the infrastructure.
    * ESG Metric - Carbon Footprint: Input the carbon footprint metric for the existing infrastructure, measured in CO2 emissions.
11. **Landing Section:**
    * The page begins with a captivating header, inviting users to explore and create their own sustainability business case.
    * A hero image or illustration depicting sustainability and innovation sets the tone for the page.
    * A brief introduction highlights the importance of sustainability in business and the value of creating a compelling business case.
12. **Step-by-Step Guide:**
    * The main section of the page features a step-by-step guide for building a sustainability business case.
    * Each step is presented as a card or section, with clear headings and concise descriptions.
    * The steps may include identifying sustainability goals, conducting a carbon footprint analysis, researching industry best practices, and defining key performance indicators (KPIs).
13. **Interactive Tools:**
    * Interactive tools and widgets allow users to input data, customize parameters, and generate insights in real-time.
    * For example, a carbon footprint calculator widget enables users to estimate their organization's carbon emissions based on various factors such as energy consumption, transportation, and waste production.
    * In addition to its core functionalities, EcoVision offers a range of supplementary tools to enhance the sustainability assessment process.
    * These tools may include ROI calculators tailored to measure the return on investment associated with sustainability initiatives implemented through EcoVision.
    * Furthermore, risk assessment matrices can help organizations identify and mitigate potential risks related to environmental impact and regulatory compliance.
    * EcoVision also provides scenario planning simulations, allowing users to explore different scenarios and assess their potential effects on carbon emissions and sustainability goals.
    * By integrating these additional tools into the EcoVision platform, organizations can gain deeper insights into the financial implications, risks, and strategic considerations associated with their sustainability efforts.
14. **Case Studies and Examples:**
    * Inspiring case studies and examples showcase successful sustainability initiatives and business cases from various industries.
    * Each case study highlights key challenges, strategies, and outcomes, providing valuable insights and inspiration for users.
15. **Community Engagement:**
    * A community engagement section encourages users to share their ideas, ask questions, and collaborate with peers.
    * Social media integration allows users to connect with others, join discussions, and share their progress.
16. **Navigating the Dashboard:**
    * Once logged in, you are directed to the dashboard, named "EcoGenesis Vista," where you can explore various sections and functionalities of the platform.
    * The dashboard offers a comprehensive overview of sustainability metrics, project progress, and recent activities. It is visually appealing and easy to navigate, providing valuable insights at a glance.
17. **Exploring Project Data:**
    * You navigate to the "Project Analytics" section, where you can delve deeper into specific sustainability projects and initiatives.
    * Here, you can view detailed reports, charts, and graphs that showcase carbon footprint data, energy efficiency metrics, and environmental impact assessments. The data visualization tools are robust and interactive, allowing you to customize views and analyze trends effectively.
18. **Interacting with Reports:**
    * As a judge evaluating the working demo, you access the "Reports Hub," a centralized repository of project reports and documentation.
    * The Reports Hub features a user-friendly interface with search functionality, filtering options, and categorization tags. You effortlessly locate the reports relevant to your evaluation criteria and access detailed insights and findings.
19. **Downloading ESG Metrics and Trends:**
    * You navigate to the "ESG Metrics" section, where you can download comprehensive reports on environmental, social, and governance (ESG) performance indicators.
    * The reports include key metrics, trends analysis, and actionable recommendations for optimizing sustainability practices. The information is presented in a visually engaging format, making it easy to interpret and leverage for decision-making.
20. **Feedback and Collaboration:**
    * Impressed by the depth of analysis and insights provided by EcoVision, you provide feedback and suggestions for further enhancement.
    * You appreciate the platform's user-friendly interface, robust analytics capabilities, and commitment to sustainability. You also commend the EcoVision team for their innovative approach and dedication to environmental stewardship.

# **User Journey: Mandatory Check-in and Sustainability Assessment**

1. **Integration Mandate:**
   * Kyndryl mandates the integration of EcoVision into its software development lifecycle, aiming to assess and optimize the sustainability of its projects.
   * All new and existing projects are required to undergo a sustainability assessment using EcoVision as part of the mandatory check-in process.
2. **Optimization Recommendations:**
   * EcoVision, having undergone several iterations of optimization recommendations in various programming languages, is now capable of suggesting sustainability improvements for existing Kyndryl projects.
   * Developers are prompted to incorporate EcoVision's recommendations into their codebase during the development process to enhance sustainability outcomes.
3. **Selection of Pilot Project:**
   * Kyndryl selects a pilot project from its portfolio to undergo a comprehensive sustainability assessment using EcoVision.
   * The pilot project serves as a test case for evaluating EcoVision's effectiveness in identifying and implementing sustainability measures across different software development scenarios.
4. **Sustainability Assessment and Implementation:**
   * EcoVision conducts a detailed sustainability assessment of the selected pilot project, analyzing factors such as energy consumption, carbon emissions, and resource efficiency.
   * Based on the assessment findings, EcoVision provides actionable insights and recommendations for optimizing the project's sustainability performance.
   * Kyndryl collaborates with project stakeholders to implement EcoVision's recommendations, incorporating sustainability best practices into the project's development workflow.
   * Throughout the implementation process, EcoVision monitors the project's sustainability metrics in real-time, providing continuous feedback and guidance to ensure sustainable outcomes.
5. **Scaling Sustainability Initiatives:**
   * Following the successful implementation of sustainability measures in the pilot project, Kyndryl scales up its sustainability initiatives across its entire project portfolio.
   * EcoVision becomes an integral part of Kyndryl's software development lifecycle, empowering teams to proactively address environmental impacts and promote sustainable software practices.

# **Python Programmer’s Journey**

1. **Registration and Download:**
   * As a Python programmer interested in optimizing my e-commerce application for sustainability, I visit the EcoVision website.
   * I register for an account by providing my email address and creating a password.
   * After successfully registering, I log in to my EcoVision account and navigate to the downloads section.
   * I download the EcoVision plugin for Python development, which seamlessly integrates with my preferred IDE.
2. **Entering Infrastructure Details**
   * Navigate to the form for entering infrastructure details by selecting the "Enter Infrastructure Details" option from the main menu.
   * Fill out the form fields for current infrastructure information:
   * Operating System (OS): Select the operating system used in the current environment (e.g., Windows, Linux, macOS).
   * Middleware: Specify any middleware or additional software components integrated into the infrastructure.
   * ESG Metric - Carbon Footprint: Input the carbon footprint metric for the existing infrastructure, measured in CO2 emissions.
3. **Testing CPU Sample Code:**
   * I open my IDE and create a new Python file for testing CPU utilization optimization.
   * I import the EcoVision plugin into my project and initialize it with my EcoVision credentials.
   * Using EcoVision's dynamic code profiling capabilities, I write a sample code snippet that simulates CPU-intensive operations.
   * I run the code and observe EcoVision's real-time monitoring of CPU utilization metrics.
4. **Navigation to Reporting Section:**
   * Impressed by EcoVision's CPU optimization suggestions, I decide to explore its reporting capabilities.
   * I navigate to the reporting section within the EcoVision plugin or web interface.
   * Upon entering the reporting dashboard, I'm greeted with an overview of key ESG metrics and trends.
5. **Downloading ESG Metrics and Trends:**
   * I select the option to download detailed ESG metrics and trends for my e-commerce application.
   * EcoVision generates a comprehensive report that includes environmental, social, and governance metrics such as carbon footprint, community impact, and compliance with sustainability standards.
   * I download the report in PDF or CSV format for further analysis and sharing with stakeholders.
6. **Exploring Key Insights:**
   * With the ESG report in hand, I delve into the key insights provided by EcoVision.
   * I analyze trends in ESG metrics over time using line graphs and visualizations.
   * I identify areas for improvement and optimization based on EcoVision's recommendations and benchmarks.
   * Armed with actionable insights, I begin implementing sustainability initiatives and code optimizations to enhance the environmental and social impact of my e-commerce application.

# **Usecase Scenario:**

**Scenario:** ABC Software Company aims to reduce the environmental impact of their codebase by optimizing resource-intensive operations using the EcoVision plugin. The company seeks to quantify the sustainability improvements achieved through code optimizations.

**User Registration Process:**

1. **Visit EcoVision Website:**
   * The programmer visits the EcoVision website to register and download the plugin.
2. **User Registration:**
   * The programmer navigates to the registration page and fills out the required information, including name, email address, and company details.
   * After submitting the registration form, an account activation link is sent to the provided email address.
3. **Account Activation:**
   * The programmer clicks on the activation link in the email to verify their account and complete the registration process.
   * Upon successful activation, the programmer gains access to the EcoVision dashboard and download area.
4. **Download EcoVision Plugin:**
   * From the EcoVision dashboard, the programmer locates the download section and selects the appropriate version of the EcoVision plugin for their development environment.
   * The plugin is downloaded and installed in the programmer's IDE.

**Integration with EcoVision:**

1. **Code Optimization:**
   * The programmer identifies resource-intensive operations within the codebase, such as image processing for product thumbnails, and seeks to optimize them for sustainability.
2. **Utilizing EcoVision:**
   * EcoVision is seamlessly integrated into the programmer's development workflow, enabling real-time monitoring and optimization of code changes.
3. **Calculation of ESG Metric:**
   * EcoVision employs the ESG metric formula to quantify the environmental impact of code optimizations:   
     Total Weight ESG = Total Weight  
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      Weight CPU x ∆CPU + WeightEnergy x ∆Energy + WeightCarbonx ∆Carbon

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# **Conclusion:**

In conclusion, EcoVision guides users through a seamless journey, from registration to leveraging advanced features, empowering organizations to optimize their software development processes for sustainability. Additionally, its integration as a mandatory check-in ensures that sustainability becomes a central focus in every project, facilitating a proactive approach towards reducing carbon footprint and fostering a culture of environmental responsibility.