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PerkSuity - Control and Get Benefits for Your Data

¹Aman Sarda, ²Manasi Garad, ³Amey Ghorpade, ⁴Shubham Kachore, ⁵Manjushri Mahajan

¹Student, ²Student, ³Student, ⁴Student, ⁵Faculty

¹Department of Computer Engineering,

¹G.H. Raisoni College of Engineering and Management, Pune, India

Abstract: The rapid advancement in the internet and technology, has led to a remarkable change in human life. With the increase in the number of internet users and data related to it has become a new important factor in every sector of the world. As a browser is widely used for retrieving, presenting, and traversing information resources of the World Wide Web on the internet it generates a tremendous amount of user activity data. As this data and its importance are increasing on a daily basis many web services providing companies are collecting and monitoring the data with the use of various unethical techniques. Companies are selling the user data for advertisement purposes and making profits and are showing very less or no transparent data processing policies. A browser application can help users to protect them from such wrong practices by reducing the unnecessary and harmful web content before reaching users. PerkSuity is a browser application allows users to enjoy internet browsing safely and securely with the benefits of rewards.

IndexTerms: Privacy Protection, Digital Ads, Rewards

I. INTRODUCTION

The rapid advancement in the internet and technology, has led to a remarkable change in human life. Today almost every human being used internet to an extent that it is now an essential need to many. With increase in number of internet users and data related to it has become a new important factor in every sector of the world. Collecting user data is common practice in modern websites and applications as a way of providing creators with more information to make decisions and create better experiences. among other benefits, data can be used to help tailor content, drive product direction, and provide insight into problems in current implementations. collecting relevant information and using it wisely can give organizations an edge over competitors and increase the impact of limited resources. But many of the browser companies collect all the user data with the help of hidden data policies makes profits by selling this data. And this led to unsafe browsing and causes users' privacy Violation.

To eliminate all these problems/behavior there is a solution, a system designed in which user will be the owner and decision maker of its data. So PerkSuity is the browser application having options of a) complete private/anonymous mode with features of no data collection, activity tracking and safe browsing over the internet and b) with proper user agreement to collect the data and limited activity to provide personalized ads and gave rewards which will benefit both the users and browser company to operate transparently.

The **PerkSuity** Browser is based on the same open source Chromium code like user's previous browser. This also means we can block anything malicious and make powerful improvements to user's browsing experience but with that also comes great responsibility. With that in mind user's privacy and data is at the core of what we do. We will anonymize user's personal data and attribute a randomly generated alphanumeric identifier so that no one, will ever know that it relates to you. We endeavor to only show user ads based on the preferences which user have selected.

II. PROBLEM STATEMENT:

Every browser company tracks user data and activity happening over the internet for delivering advertisement without giving user the acknowledge of types of data and activity they are collecting. And generate the revenue of hundreds of millions of dollars every year by selling this data. And not a single browser in market gave the option to the users to browse internet privately/anonymously.

III. LITERATURE SURVEY

We conducted literature reviews on four papers published in different journals.

The four papers are as follows:

1. A Review of online advertising Effects On the User Experience
2. Why not privacy by default?
3. Effect of online advertising on consumers
4. Online Privacy and the Disclosure of Cookie Use: Effects on Consumer Trust and Anticipated Patronage

1. A Review of online advertising Effects On the User Experience

This article reviews empirical research conducted and in-depth analysis of research questions, methods, and findings of the reviewed studies, the following is discussed: (a) which conceptual and theoretical background knowledge, based on psychological explanations of user cognition, affection and behavior, can best support the design and investigation of online advertising.

(b) which specific adverts features and properties are key to understand and favour certain types of effects on users

Author: Giorgio Brajnik and Silvia Gabrielli University of Udine, Udine, Italy Year of Publication: 2010

2. Why not privacy by default?

This Article argues that for tracking defaults, the assumptions on which opt-out schema is designed may not consistently hold. Past experience with the use of defaults in policymaking teaches that Track-Me defaults are likely to be too sticky, Don't-Track-Me defaults are likely to be too slippery, and neither are likely to result in well-educated consumers.

These conclusions should inform the 'Do-Not-Track' policy discussions now taking place in the United States, in the European Union, and at the World Wide Web Consortium.

They also cast doubt on the privacy and behavioral economics literatures that advocate the use of "nudges" to improve consumer decisions about privacy.

Author Name: Lauren E. Willis Year of Publication: 2014

3. Effect of online advertising on consumers

In this paper, an impact of online advertisement on users is discussed briefly and we can conclude that: The effectiveness of Online Advertisement is there with no distinctive barrier for user. As strong the effectiveness of online advertising, as more will be the purchase and accordingly be the relation between E-Commerce and advertisement. Advertisement can be termed as an infotainment which is very intense, accessible, feasible and reliable as well by creating its own credibility with being economic and stands up to be trustworthy by avoiding negativity which may lead to annoyance.

Author Name: Ashamayee Mishra¹ and Dr. D. K. Mahalik²

1. Research scholar, Department of Business Administration, Sambalpur University.
2. Reader, Department of Business Administration, Sambalpur University **Year of Publication: 2017**

4. Online Privacy and the Disclosure of Cookie Use: Effects on Consumer Trust and Anticipated Patronage

In this article author states that, the use of Internet cookies by visited Web sites and third-party firms has been criticized by consumer advocates, policy makers, and even marketers themselves as a potential threat to consumer privacy. However, research has examined how the interactive effects of the disclosure and practice of cookie use as a method of non-consensual identification might influence online users' affect or behavior.

The author has examined the implications of the three studies from the perspectives of research, management, and public policy.

Author name- Anthony D. Miyazaki Year of publication-2008

IV. EXISTING SYSTEM

In the existing situation, the browsers collect the user data and activity to understand the user behaviour and collect and sell this information to third parties for a huge amount while putting users' privacy in danger. There are some existing platforms which allow users to control the data and activity tracking but have very complex processes to reduce the adverts and tracking contents. On any regular browser platform it takes about 17 clicks to stop this tracking activity and that too if the user has knowledge of the process

V. PROPOSED SYSTEM

A desktop browser with option:

- 1) **Privacy Mode:** Will help users to browse the internet with safety, anonymity and reduced tracking content. It will give information about the blocked content on the web page the user is currently viewing.
- 2) **Reward Mode:** Will help users to earn rewards for sharing the data for better personalised adverts experience.

By reducing tracking and other cookies the multiple browser processes will get reduced resulting in reduced ram and processor usage and it will help user's devices to run with maximum optimization.

This application contains some modules:

- **Select Mode:** Select Mode module helps the user to decide whether they want to use browsers in private mode or reward mode. If the user chooses the private mode then user activities will be anonymous and the user will be free of tracking and other unwanted contents on web pages they visit and will enjoy the ad free, safe browsing. In Reward mode the users will earn points while browsing the internet for seeing the advertisement based on the preferences they have set in the preferences module.
- **Preferences:** Preferences module will give users a wide variety of options for advertisement topics they want to see while surfing the internet. System will use this module to set the adverts topic for the users. This module will help to accurate the recommendation processes.
- **User Profile:** The User Profile module will give the user registration details, about information and will have the options to modify this information.
- **Marketplace:** The Marketplace Module will provide users to redeem the points they have earned in the system for products, vouchers or donations to charity. E. **Usage Overview:** This module will give the overview of system usage, points history, current browsing mode, other ways to earn points and tips/blogs informing about browsing securely.

VI. SOFTWARE REQUIREMENT SPECIFICATION

The main objective of this document is to illustrate the requirements of the project “PerkSuity”. The document gives a detailed description of both functional and non-functional requirements. The purpose of this project is give power to users for monitoring and controlling personal data over the internet with rewards and privacy as benefits.

User Classes and Characteristics User:

- End user of the PerkSuity will have an option to choose two mode of internet browsing.
- First mode ‘Private Mode’ in which user data, activity by anonymizing user’s personal data and attribute a randomly generated alphanumeric identifier to disconnect it from user. All the unwanted cookies and URL requests will be blocked and reward mode will get paused.
- Second mode ‘Reward mode’ where user preferred advertisement data will be collected and will be used to show ads and rewards points will be collected by users.

System Feature 1: Rewards

All users who allow advertisements will get rewards after watching advertisements in the form of coupon or discount. That will be beneficial for users to watch advertisements and get rewards instead.

System Feature 2: Data Security

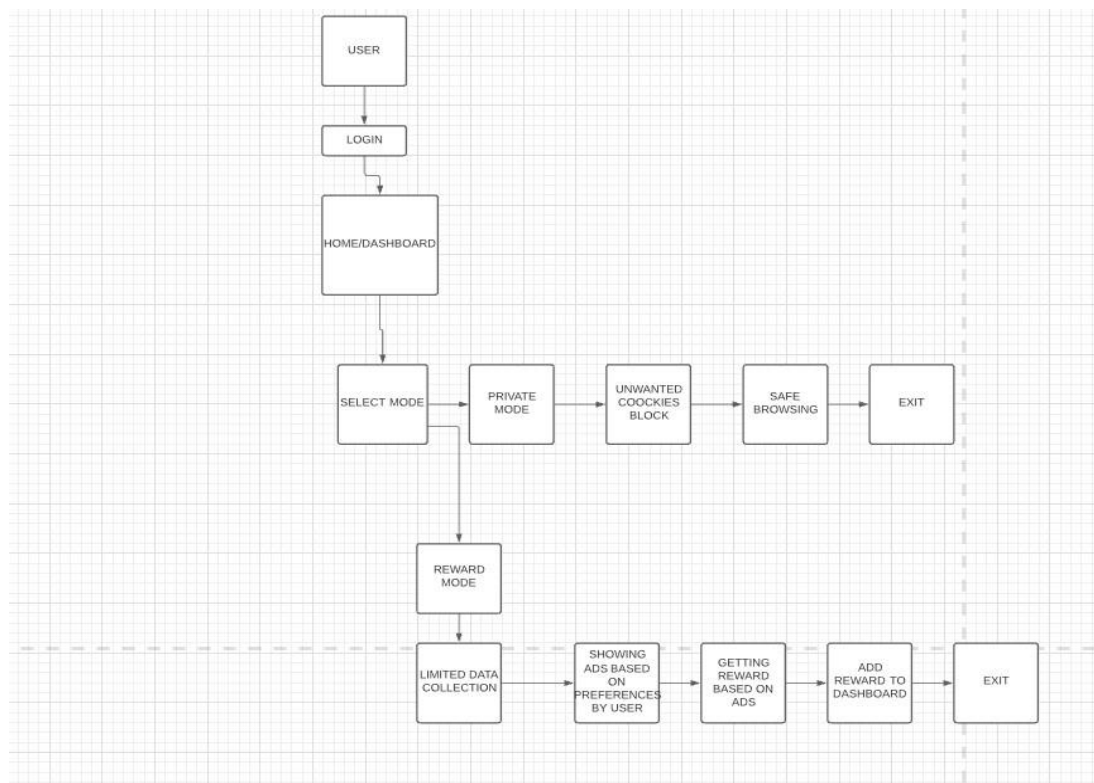
Nowadays Data security is very important to every user. This browser will provide privacy and data security to user and give experience of safe browsing. In this, browser gives power to user to monitor and control personal data.

System Feature 3: user privacy

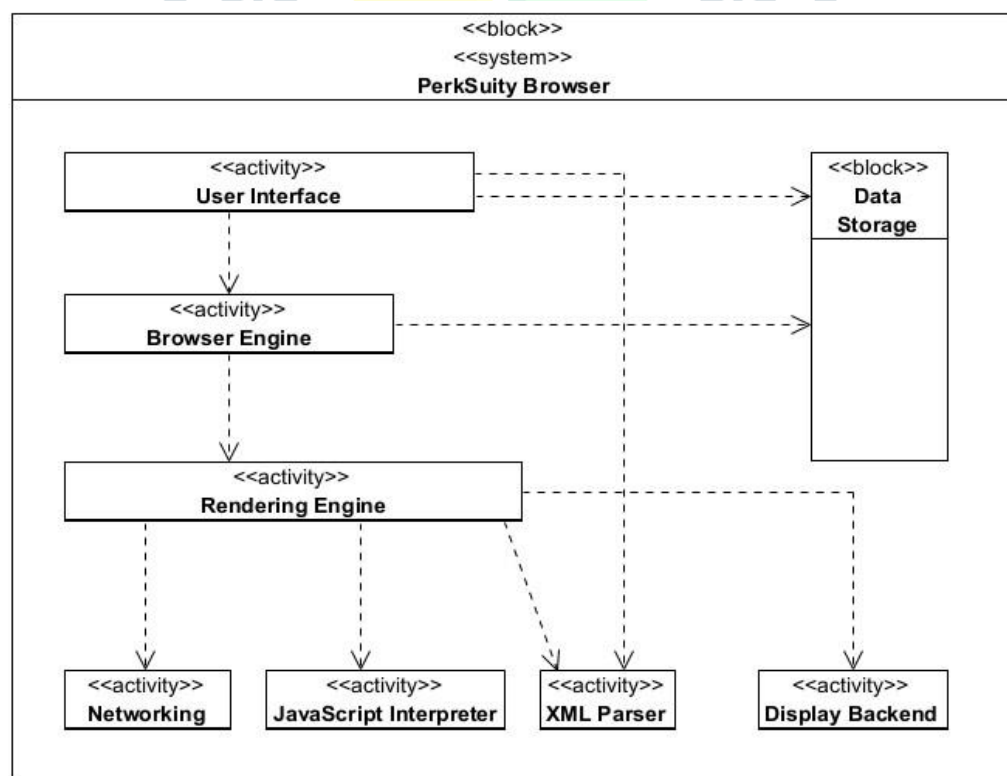
Along with the data security data privacy is important for user. Everyone wants Safe browsing nowadays.

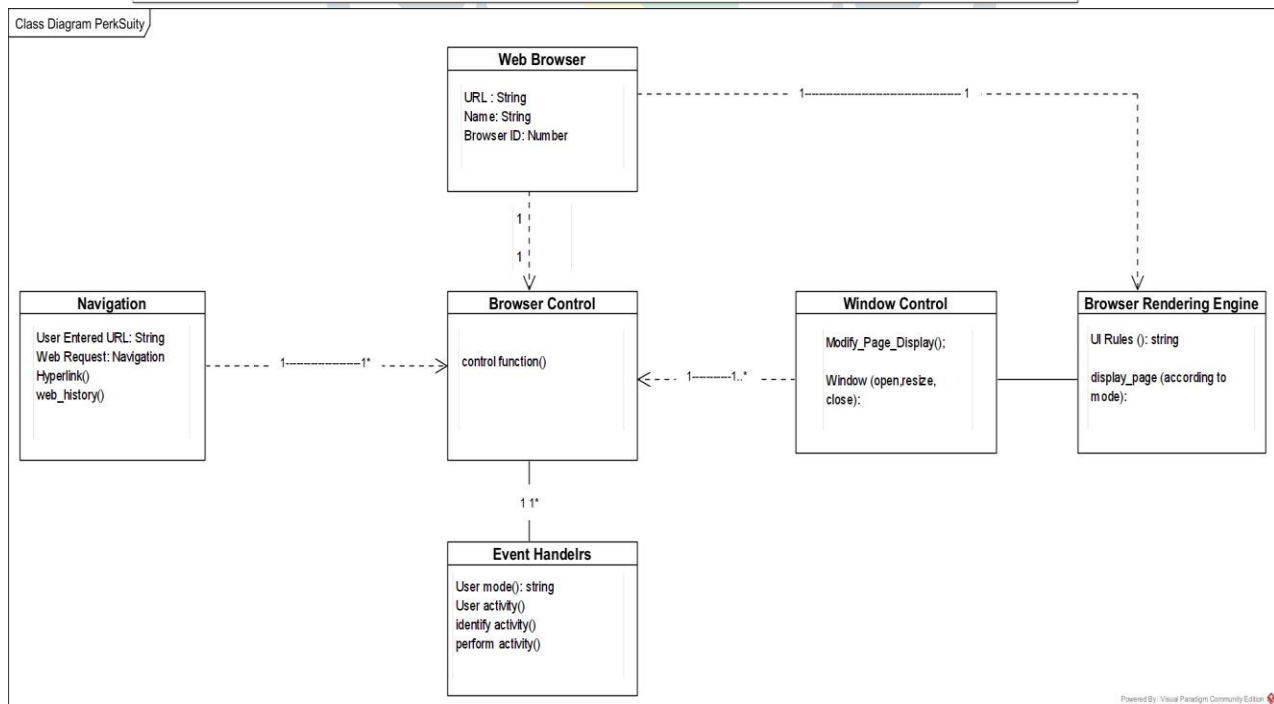
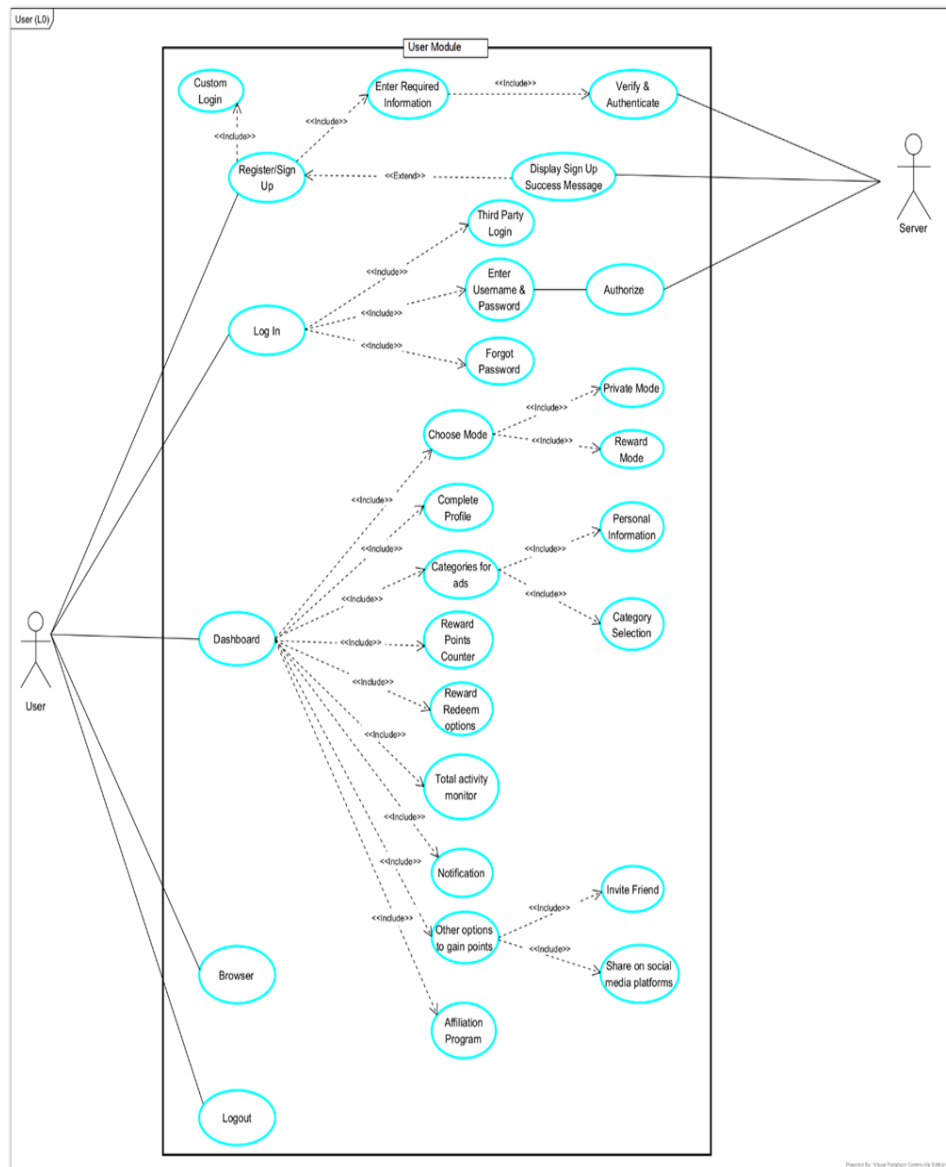
VII. SYSTEM DESIGN

system architecture



Data Flow diagram





UML Diagram

User Activity Dig

VIII. APPLICATIONS:

- Knowing the use of the its data, user will enjoy the internet surfing.
- Collecting User preferred data will increase the accuracy and efficiency of the personalize ads recommendation algorithms and reduce the use of ad blockers.
- Points based rewards will benefit users in various ways and will help company to grow its user-base.

IX. FUTURE WORK:

- A browser extension allowing users to get PerkSuity system benefits on other browser applications.
- Application for mobile users.
- Application for the iOS users.

X. CONCLUSION

The PerkSuity browser application will enable users to browse internet safely and securely, easily gets rewards for using system, and gain access to control and monitor data privacy and activity over the internet. By reducing tracking and other cookies the multiple browser processes will get reduced resulting in reduce ram usage and it will help user's devices to run with maximum optimization.

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