

# Honey Coupons App

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# **1. Introduction**

## ***1.1. Purpose***

The purpose of this document is to detail the software requirements of the *Honey* web extension and the *Honey* website. It will explain the intended purpose of the system, the functionality of the system, and the user interactivity with the system.

## ***1.2. Intended Audience***

The document is intended to provide insight for development teams on the technical requirements of *Honey*. It will also allow potential stakeholders and other interested parties to understand the functionality of *Honey* from a higher-level perspective. It is expected that the reader has adequate domain knowledge regarding E-commerce.

## ***1.3. Intended Use***

*Honey* is a web extension that streamlines the online shopping process by automatically finding and applying valid coupon codes to products the user intends to buy. *Honey* will show all the coupons available on many of the most popular online shopping websites and online marketplaces allowing for an easy way to compare and contrast where there are more sales and offers. Additionally, *Honey* allows users to register an account with *Honey* to accumulate rewards and provide a more personalized user experience.

## ***1.4. Project Scope***

The *Honey* system automates the process of searching and applying coupons to an online purchase. This system compares multiple coupons from various sources and determines the

coupon that saves the most money. *Honey* allows the user to track specified items and set up alerts for price drops. Use of the *Honey* system with a registered account rewards the user with *Honey Gold* which can be redeemed for gift cards.

### ***1.5 Definitions and Acronyms***

<b>Term</b>	<b>Definition</b>
Honey Gold	a type of rewards and incentive program  Honey offers users. You gain gold by buying certain items or referring someone else to honey. If you collect 1,000 gold it can be used to redeem a \$10 gift card.
Droplist	a menu of items that was stored by the user.  Honey can use this list to track prices and inform the user of a change in price.
Web extension	Browser-specific software than can modify the user interface or add some Web service functionality to the browser
E-commerce	A business model that allows firms and individuals buy and sell products over the internet

## **2. Overall Description**

## ***2.1 User needs***

The Honey browser extension is designed to give a user access to various coupons by testing the coupons stored in a database of coupons collected by honey. A user would want this browser extension because it is a fast and easy way to save money, especially since it tests all the different coupon codes for you. Users need to shop as they normally do, while being sure that they have access to the best prices available. Honey cannot be an extra step that causes a drop in convenience or requires the user to change the methods that they have typically used to shop online in the past. This usually takes a great deal of research and it has become an almost infinitely growing task with how vast the amount of online marketplaces there are today. For these reasons, users would need to see how many coupons they have available to them on a specific website so that they can quickly compare and contrast them to see which will have a better deal. Secondary users may be “window shopping” while the Honey extension is installed. These users don’t need to compare and contrast various deals, or even have a highly quick and convenient experience. The needs of the Secondary user is simply to buy whatever interests them and is presented to them as good value.

## ***2.2 Product Features***

1. Website Scan
  - a. Upon entering the website, use the extension to scan for coupons which can show all the items which are on sale or have a deal. The website scan will also display any promotion offers of sales, such as buy one get one free, or free shipping.
2. Coupon Scan

- a. On the checkout screen for supported shopping websites, the user will be able to run a scan for any current promotions or coupon codes available for the particular product or products. This is limited to 20 coupons, and if there are more will ask the user if they would like to apply more. After the scan is complete, honey will enter the promotional code if applicable into the website for you and show how much you've saved.
- 3. Price History
  - a. Shows the history of the product's price on a particular website. Available through a graph to see changes over time
- 4. Compare Prices
  - a. Honey will allow you to compare sellers on big websites which offer multiple sellers. For example, on websites like Amazon, Honey helps you determine which seller has the lowest price overall.
- 5. Honey Gold
  - a. On certain purchases, users will have a chance to earn honey gold. A currency redeemable through honey for available items such as gift cards. 100 Honey gold will be roughly worth 1 dollar.
- 6. Daily Deals
  - a. Depending on the interests of the user, will display daily deals. These are items on sale or items identified to be a good deal which have specific interest to the user.
- 7. Save items for later
  - a. While shopping for an item, you can save your item in your droplist.

- b. The saved items are stored for you and Honey notifies the user if the price of the item has changed.

### ***2.3 Assumptions and Dependencies***

The user needs a web browser that supports an extension. If the user chooses not to add the extension, they still have the ability to track items and prices on the Honey website. However, they are unable to save the information without an account. The extension gives the user the opportunity to check for coupons immediately without having to search through the website later. As of *Honey* version 12.8.2 released on November 17, 2020, the user is required to have at least 3.67 MiB of storage free to download the web extension. Additional storage is required to cache data.

### ***2.5 Operating Environment***

Honey is designed to be compatible with different web browsers and can also be used on mobile devices. It is best used as a browser extension that can automatically search for coupons while you are waiting to make your purchase. The following browser and OS combinations currently support the *Honey* web extension: Chrome on Mac, Chrome on Windows, Firefox on Mac, Firefox on Windows, Opera on Mac, Opera on Windows, Safari on Mac, Edge on Windows. If popup or advertisement blockers are enabled, Honey may not be able to function properly.

### ***2.6 Design and Implementation Constraints***

The main purpose of the *Honey* system is to streamline and automate the process of searching for coupons and applying them to select E-commerce stores; however, this feature can only be

implemented as a web extension. Web extensions allow for added functionality to a user's web browsing experience, so the *Honey* system is unable to operate at its fullest capacity under any other scenario. A user can manually search for coupons for select stores on the *Honey* webpage, but the core feature of *Honey* is its ability to automate this functionality.

### 3. System Features

#### 3.1 Functional Requirements

<b>Use Case</b>	Add <i>Honey</i> to Google Chrome
<b>Description</b>	Install the <i>Honey</i> web extension to the Google Chrome browser
<b>Trigger</b>	User selects "Add to Chrome"
<b>Precondition</b>	User is on the <i>Honey</i> page of the Chrome Web Store
<b>Postcondition</b>	<i>Honey</i> web extension is installed to Google Chrome
<b>Steps</b>	<ol style="list-style-type: none"> <li>1. User selects "Add to Chrome"</li> <li>2. Pop-up appears prompting the user to "Add extension" or "Cancel"</li> <li>3. User selects "Add extension"</li> <li>4. New tab directing user to <i>Honey</i> website appears indicating installation was successful</li> <li>5. <i>Honey</i> is installed to Google Chrome</li> </ol>
<b>Alternate Steps</b>	AS1: <i>Honey</i> is already installed <ol style="list-style-type: none"> <li>1. User has the option to "Remove from Chrome"</li> <li>2. <i>Honey</i> is uninstalled</li> </ol>

<b>Use Case</b>	Apply Coupon
<b>Description</b>	Automatically search and apply the coupon that provides the largest discount.
<b>Trigger</b>	User selects an item for purchase on an E-commerce site.
<b>Precondition</b>	User is on an E-commerce site's checkout page for items he or she



	intends to purchase. The Honey web extension is enabled.
<b>Postcondition</b>	Total price of the user's shopping cart is deducted
<b>Steps</b>	<ol style="list-style-type: none"> <li>1. Upon reaching the checkout page, the Honey extension will pop-up indicating that one or more coupons have been found.</li> <li>2. The user selects the "Apply Coupon" button.</li> <li>3. Honey automatically searches through its consolidated coupons list for the coupon that provides the largest discount.</li> <li>4. Honey applies the aforementioned coupon</li> <li>5. The user selects "Continue to Checkout"</li> <li>6. The E-commerce page updates the total price to reflect the discount</li> </ol>
<b>Alternate Steps</b>	AS4: Honey is unable to provide a discount for the current price <ol style="list-style-type: none"> <li>1. Honey notifies the user that there is no applicable coupon</li> <li>2. No changes are made to the total price</li> </ol>

<b>Use Case</b>	Track Item Price
<b>Description</b>	The user can browse for items and is able to save the items for later. Honey then tracks the items and notifies the user of a price change in the item.
<b>Trigger</b>	User selects an item to save for later.
<b>Precondition</b>	The user is searching for a specific pair of shoes to purchase but cannot afford to pay full price.
<b>Postcondition</b>	The user is notified of the price reduction and has an option to purchase.
<b>Steps</b>	<ol style="list-style-type: none"> <li>1. While shopping, the user decides to save an item to purchase later.</li> <li>2. The user can add items to the dropdown list to save for later</li> <li>3. <i>Honey</i> tracks the price of that item and alerts you if the price is reduced.</li> <li>4. The user can then decide if they would like to purchase the item once honey notifies them of a price change.</li> </ol>

<b>Alternate Steps</b>	<ol style="list-style-type: none"> <li>1. The price is not reduced and the user is never notified of a reduction <ol style="list-style-type: none"> <li>a. The user may still purchase the item and attempt to use an alternative like the coupon search Honey provides.</li> <li>b. The user may decide to look for an alternative option.</li> </ol> </li> <li>2. The price is reduced <ol style="list-style-type: none"> <li>a. The user is given a notification and the opportunity to purchase the specific item.</li> <li>b. The user may decide not to purchase the item and would rather wait for an additional reduction.</li> </ol> </li> </ol>
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<b>Use Case</b>	Redeem Honey Gold
<b>Description</b>	Redeem Honey Gold for an e-gift card
<b>Trigger</b>	Select “Redeem” from menu bar
<b>Precondition</b>	User is on the “Honey Gold” section of Honey’s main site. User is logged into Honey. User has 1,000 or more Honey Gold.
<b>Postcondition</b>	An email containing a gift card is sent to the user from Honey.
<b>Steps</b>	<ol style="list-style-type: none"> <li>1. The user selects one or more gift cards from selection provided by Honey</li> <li>2. Honey adds a visual indicator to each gift card showing which gift cards the user has selected</li> <li>3. For each selected gift card, the user selects amount of money (in increments of 10 from 10 to 100) the gift card is worth</li> <li>4. User continues to checkout</li> <li>5. User places order to redeem selected gift cards</li> <li>6. Honey emails user with selected gift cards</li> </ol>
<b>Alternate Steps</b>	AS2: User does not have enough Honey Gold to select additional gift card <ol style="list-style-type: none"> <li>1. Selecting additional gift cards has no effect</li> </ol> AS3: User does not have enough Honey Gold to increase value of gift card <ol style="list-style-type: none"> <li>1. Option to increase value of gift card is not displayed to user</li> </ol>

### ***3.2 External Interface Requirements***

To have access to the extension browser *Honey* users must have a device that is able to open and search the web or download apps. Every browser, android device, or iOS device is compatible with the extension/ app in order to give users the most control over how they do their shopping. No other external interface requirements.

### ***3.3 System Features***

#### **The Home Page:**

**Daily Deals Page:** This section is present on the user's home page as soon as they open the app/ browser extension. This will change every 24 hours and will highlight the products with the biggest mark-downs in price. This section does not take into account the personal preferences of the user, instead displays from an algorithm.

#### **Trending Stores:**

**Trending in <X>:** This section is present under the user's home page as soon as they open the app/ browser extension. The X in the title is replaced with a product category and swiping to the right will show the user an array of items under the same product category that has been trending. Trending requires the product to be ranked as more popular than its counterparts within the same category.

**Hot Deals from <X>:** This section is present under the user's home page as soon as they open the app/ browser extension. The X in the title is replaced with a product category and swiping to the right will show the user an array of items under the same product category that has been trending. For an item to be present under this category, it needs to undergo a price drop that will place the product in the 'Sweet Deal' category.

**Stores you should Follow:** This allows the user to “follow” stores that are most appealing and convenient to them. For example, if a user has a history of purchasing clothing then they would “follow” stores like H&M or Free People. The store’s page is listed and a user can click on the store to view deals specific to them. On the right side of the store list there will be a blue rectangle button with the words “Follow”. This will allow the user to quickly pick and choose new stores for them to follow. Following a store will alert the user with notifications (through email or on-screen) about new deals or price drops. Scrolling down from this page will allow the user to also see a mix of all the stores they are currently following and the most recent discounts that have been found with Honey’s algorithm. All these discounts should be updated constantly to present the user with ‘Just Now’ prices.

**Top Deals Today Page:** This page present on the second tab of the *Honey* app displays stores based on the user’s preferences. Here they will find the stores that the previously “followed” and will display under the store name the most recent coupon code/ discount *Honey* has collected.

**Droplist:** *Honey* has dedicated a special tab to display only what the user decides to add to their droplist. Users will receive notifications about any price drops on the products they save here. When using other features of the app, the user can press a flag icon with a plus sign in the middle to add the product into their droplist.

**Profile:** The Honey profile allows the user to customize their profile, view their honey gold, and other settings related issues. The customizable feature to the Honey profile includes: changing your profile picture, changing your first and last name (visible to other Honey users), editing your bio, changing the email linked to this Honey account, and changing the password linked to

this Honey account. On the profile page the image of Honey Gold is very visible and the quantity that the user has in their account is listed under. When the user clicks the Honey Gold tab that will take them to a new screen where they can Redeem their Honey Gold (if eligible) and can see all the actions that have awarded them Honey Gold. Other tabs present in the profile page include: Settings, Legal, Support, and Logout.

### **Web Extension Pop-Up:**

*Note: Users can navigate to this pop-up by selecting Honey in the extensions drop-down list located at the top right section of the Google Chrome web browser.*

The extension is enabled depending on whether or not the user is currently on a Honey-supported E-commerce site. The *Honey* logo will be orange if the site is supported and grey otherwise.

There are three tabs seen when opening the web extension pop-up: Home, Search, and Account.

In all three tabs, the user's *Honey Gold Balance* can be seen near the bottom of the pop-up.

**Home:** If the user is not on a supported site, the Home tab notifies the user as such and displays a list of Honey-supported sites with their respective coupon “success rates.”

Under these circumstances, there are two additional tabs in the home tab: *Trending* and *Followed*. *Trending* shows trending Honey-supported sites while *Followed* shows Honey-supported sites that the user has chosen to follow.

If the user is on a supported site, the name of the site is displayed at the top of the pop-up.

Under the name of the site is the number of followers that site has on *Honey* and a button with the text “Follow” that allows the user to follow the site. If the user is already following the site, the button has the text “Following” but changes to “Unfollow” when

the user hovers over the button. The user can scroll down the pop-up to view a list of coupons for a selection of products sold by the E-commerce site.

**Search:** A search bar with the text “Search Stores” is displayed at the top of the Search tab. The user can search for any Honey-supported site here and, upon selecting a store, is brought to the same page that is shown to the user when on a Honey-supported site on the Home tab. Under the search bar is a panel of “Trending Stores” with follow counts and a button that allows the user to follow the store. Next to the “Trending Stores” text is a clickable link with the text “View All” that redirects the user to the *Honey* website.

**Account:** The Account tab has two additional tabs: *Honey Gold* and *Account*. The *Honey Gold* tab shows the user’s current Honey Gold Balance. Under that, there is a button with the text “Redeem Honey Gold” that redirects the user to the Honey Gold page on *Honey*’s main website. If the user does not have the minimum redemption amount for Honey Gold, the button is greyed out and unselectable. Under that section is a “Referral” section that provides the user with a link to share with other users.

The *Account* tab displays the user’s first name, last name, and email. This information is followed by four external links for *Settings*, *Legal*, *Support*, and *Rate Honey*. These links will redirect the user to the corresponding page on *Honey*’s site. A last option *Logout* lets the user log out of their account.

## 4. Nonfunctional Requirements

### 4.1 Performance Requirements

Honey finds the best coupons and website offers, while only being limited to a browser extension. What this means is that users should not notice a significant decrease in the quality

and speed of their browsers while Honey is working in the background. Since honey is just an extension, it should not block or obstruct any of the information users are trying to access on any particular website. The extension should be lightweight and apart from whatever information the user needs, almost unnoticeable as to not affect the user's typical online shopping experience. As it is Honey's main purpose, it is necessary to confirm the extension is correctly scanning for the best coupons and offers online. Its database of coupons and offers should be constantly being updated to not only remove older and non-working coupons, but to add new deals as they arise online. This has to be done in a way that also assures the user they are receiving the best value from whatever purchase honey is assisting them with, along with constantly similar performance as if the extension was not installed.

#### ***4.2 Security Requirements***

Honey will need to assure the user that their data is secure. With an extension like Honey, it is required that the program is able to collect user data and other data from the websites they've visited to determine the best prices for the user. Because of this, the user has to be assured that all of the data being collected is only for these purposes, and is in no way breaching the privacy of anyone who installs the extension. This level of trust between the user and Honey will be the biggest security priority. Since Honey requires the use of sensitive user data, websites that interact with the program should also not gain unauthorized use. This means Honey must also have a secure way of storing this data.