



LUG

MANIPAL



CHROME EXTENSIONS AND CUSTOM UI

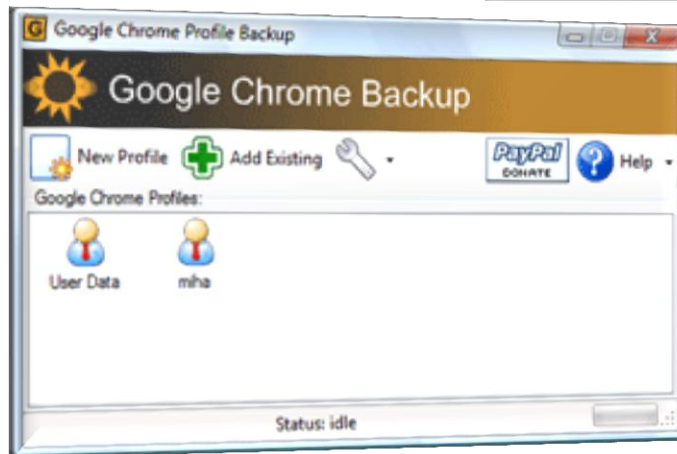
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What are extensions?

Extensions are extra features and functionality that you can easily add to Google Chrome.

By using extensions, you can customize Google Chrome with features you like, while keeping your browser free of things that you don't use.

Samples



How are they used?

- ❖ Enhancing the usability of Chrome by adding (or removing) many features to it.
 - ❖ Change the way we surf the websites by organizing stuff according to user's wish
 - ❖ Blocking unwanted things like advertisements, popups, etc.
 - ❖ Change the look of websites and browser.
 - ❖ Sharing and bookmarking information in a much easier way.
 - ❖ Desktop Notifications
- AND MUCH MORE.....

You may need the following to start developing a successful chrome extension.

- **Google Chrome Browser**

What else??????????

It needs no other resources but for you!

Knowledge required:

- HTML
- CSS
- JAVASCRIPT
- CHROME EXTENSION API (Optional)

How do I start?

THE MANIFEST FILE

```
{  
  // Required  
  "name": "My Extension",  
  "version": "versionString",  
  
  // Recommended  
  "description": "A plain text description",  
  "icons": { ... },  
  "default_locale": "en",  
  
  // Pick one (or none)  
  "browser_action": {...},  
  "page_action": {...},  
  "theme": {...},  
  "app": {...},  
  
  // Add any of these that you need  
  "background_page": "aFile.html",  
  "chrome_url_overrides": {...},  
  "content_scripts": [...],  
  "file_browser_handlers": [...],  
  "homepage_url": "http://path/to/homepage",  
  "incognito": "spanning" or "split",  
  "key": "publicKey",  
  "minimum_chrome_version": "versionString",  
  "omnibox": { "keyword" : "aString" },  
  "options_page": "aFile.html",  
  "permissions": [...],  
  "plugins": [...],  
  "update_url": "http://path/to/updateInfo.xml"  
}
```


Google has a gallery of extensions which you can look into from the website

<https://chrome.google.com/webstore?category=ext>


They have extension **.crx** does not need any re-install after download.

Manifest file extension - .JSON (Javascript Object Notation)



GETTING STARTED

HELLO WORLD

- 1) CREATE A FOLDER ANYWHERE IN YOUR PC
- 2) CREATE A JSON FILE USING NOTEPAD AND PUT THE CODE INSIDE. (JSON is abbreviation of Javascript Object Notation.)
- 3) PUT AN ICON FOR THE EXTENSION, PREFERABLY 16 X 16 (in pixels)
- 4) PUT ALL YOUR HTML, CSS, JAVASCRIPT FILES INSIDE THE RESPECTIVE FOLDER
- 5) Click on  icon -> TOOLS -> Extensions
- 6) Expand Developer mode -> Click Load Unpacked Extension Button
- 7) In file explorer, browse for your folder where you created files and click OK

Manifest file

(manifest.json)

```
{  
  //name of your extension  
  "name": "My First Extension",  
  
  //version of your extension  
  "version": "1.0",  
  
  //description about the function of your extension  
  "description": "The first extension that I made.",  
  
  //involves all browser related interactions  
  "browser_action": { "default_icon": "icon.png" },  
  
  //sites which your extension is allowed to access  
  "permissions": [ http://*/*, "https://*/*" ]  
}
```

POPUP FILE

This is the file which pops out when you click the extension icon in the browser.

Put any html code here and you get the output in popup.

```
<html>  
<font color="red">Hello world</font>  
</html>
```

JUST ADD THE HTML CODE IN THIS FILE

YOUR EXTENSION IS NOW USABLE!

BUT HOW DO WE UPLOAD IT?

- 1) Go to <https://chrome.google.com/webstore>
- 2) Go to developer dashboard and sign in with your google account.
- 3) Click add new item button
- 4) Browse for the file and upload it.

Problem Statement:

The present age is that of the Internet. Having a presence on the Internet is almost mandatory these days. The Internet is replacing common day to day tasks. Internet Marketing is also an emerging concept. It gives you the power to choose and buy quality products from the comforts of your home.

The objective is to design an application to enable the user to purchase any electronic products, music albums , games and softwares commonly available on various e-commerce stores.

The user should be able to get information on products from various e-commerce platforms based on ratings, cost, configuration, usage etc. It can be a Facebook/ Twitter application, or a Chrome/Firefox addon.

Participants may use innovative methods in the application to help the user get the best deal for a particular product. It can also be a recommendation engine driven by similar products that his friends have purchased from Twitter/ Facebook streams.

STORING ITEM

// Store item in local storage:

```
function setItem(key, value) {  
  try {  
    log("Storing [" + key + ":" + value + "]");  
    window.localStorage.removeItem(key);    // <-- Local storage!  
    window.localStorage.setItem(key, value); // <-- Local storage!  
  } catch(e) {  
    log("Error inside setItem");  
    log(e);  
  }  
  log("Return from setItem" + key + ":" + value);  
}
```

GET ITEM FROM STORAGE

```
// Gets item from local storage with specified key.  
function getItem(key) {  
  var value;  
  log('Retrieving key [' + key + ']');  
  try {  
    value = window.localStorage.getItem(key); // <-- Local storage!  
  } catch(e) {  
    log("Error inside getItem() for key:" + key);  
    log(e);  
    value = "null";  
  }  
  log("Returning value: " + value);  
  return value;  
}
```

CREATE LOGS

```
function log(txt) {  
  if(logging) {  
    console.log(txt);  
  }  
}
```

CLEARING LOCAL STORAGE

```
// Clears all key/value pairs in local storage.  
function clearStrg() {  
  log('about to clear local storage');  
  window.localStorage.clear(); // <-- Local storage!  
  log('cleared');  
}
```

THANK YOU

CONTACT DETAILS

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