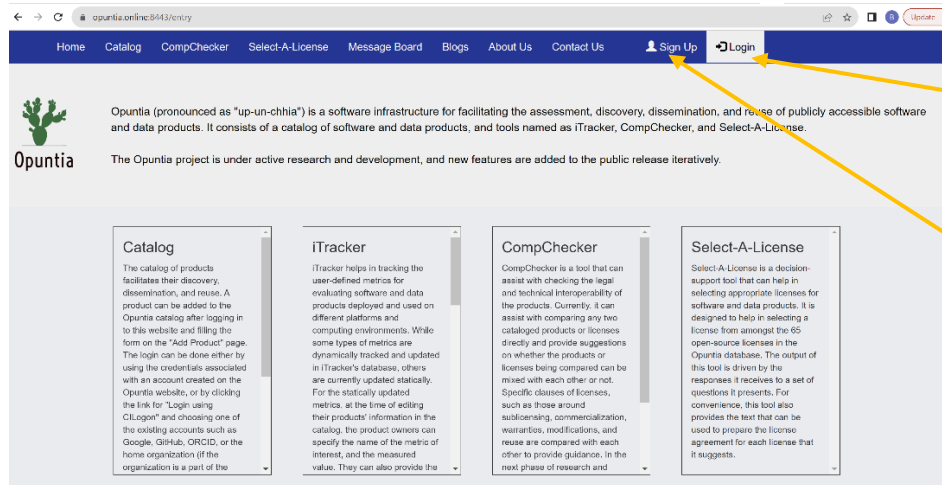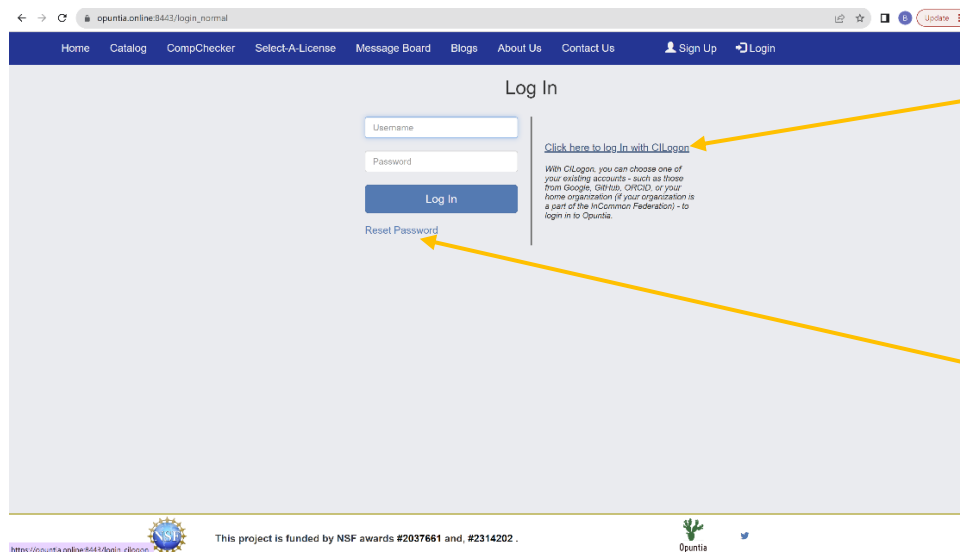**Opuntia User-Guide**

1. How can you catalog a product in Opuntia?

In order to catalog a product in Opuntia you will need to login onto the Opuntia web-portal. You can either create a new account on the Opuntia web-portal or use your existing accounts from GitHub/Google/ACCESS(XSEDE)/University for authentication. If you would like to use your existing accounts on GitHub/Google/ACCESS(XSEDE)/University to log into the Opuntia web-portal, you would need to select the option to login with CILogon from the login page. CILogon offers the single-sign-on service that is integrated with the Opuntia web-portal.

Click on "Login" to use an existing account

Click on "Sign Up" for creating a new account on the Opuntia web-portal

Click on "CILogon" for using your existing accounts from GitHub/Google/ACCESS/ University

If you would like to use the account created on the Opuntia web-portal, then enter the username and password here to login

After you login into Opuntia, click on the "Add Product" menu option and fill in the form. You can enter your product name and other metadata related to it. You can also enter the usage metrics for your product. If your product is hosted on GitHub or GitLab and you provide the link to your

repositories from those websites, the **iTracker** component in Opuntia will automatically gather the publicly accessible insights from your repositories such as the number of commits, number of collaborators, number of forks, and number of stars, and update your products page in the catalog every half an hour.

Add usage metrics

The form for cataloging the software and data products

If you are cataloging a product that has Google analytics integrated with it, and you are exporting your analytics data – number of website visits and number of users - to a publicly accessible Google spreadsheet, and provide the link to the spreadsheet, then iTracker can automatically get the data from the spreadsheet and update the catalog page of your product every half an hour.

An **iTracker** library can also be integrated with code written in Java and C++ for making a software product self-reporting. However, at this time this feature has limited capabilities and should be enhanced to seek user-consent before sending the usage data to the Opuntia database.

For help in leveraging the **iTracker** component with your product, please feel free to contact the Principal Investigator of the Opuntia project (Ritu Arora, ritu@wayne.edu).

2. How to edit the details of a product in the Opuntia catalog?

The principal investigators of the projects or their delegates can login into the Opuntia web-portal and navigate to the catalog page of the product that they added. They will be able to edit all information regarding their product by clicking the edit button except the information on the previously submitted metrics. For help in editing the previously submitted usage metrics, please

send an email to Ritu Arora at ritu@wayne.edu. Additional metrics can be added by clicking the edit page as well.

Click the "Edit" button for modifying the data related to your cataloged product

The data on this editable form is populated from the database

Click on the "Add Additional Metric" button for extending the usage metrics.

3. How to use CompChecker?

CompChecker can be used to compare any two cataloged products for legal interoperability, or compare any two licenses for the open-source products in the database. You can select the products or licenses of interest from the drop-down menus and see their comparison. CompChecker can provide suggestions on whether the products or licenses being compared can be mixed with each other or not. Specific clauses of licenses, such as those around sublicensing, commercialization, warranties, modifications, and reuse are compared with each other to provide guidance.

You do not need to be logged in to use CompChecker.

Comparing a product with LGPL-3.0-only license and another one with BSD-3 clause license

Comparison of the different properties of the licenses

Guidance on the final license to choose if the two products are mixed.

Software-Software Comparison
Below is the list of products that are currently in the Opuntia catalog. You could compare them for legal-interoperability by selecting and clicking on the check compatibility button.

Software 1:
--- Software ---

Software 2:
--- Software ---

Check Compatibility

License-License Comparison
Below is the list of licenses that are currently in the Opuntia catalog. You could compare them for legal-interoperability by selecting and clicking on the check compatibility button.

License 1:
BSD-3-Clause

License 2:
GPL-3.0-or-later

Check Compatibility

License Compatibility Result
Software with license BSD-3-Clause, is compatible with the software having license GPL-3.0-or-later. After combining the software, your final license should be the the leading license or the most restrictive one out of the two. **In this case, your final license could be 'GPL-3.0-or-later'.**

Additional Results of License Comparison
'Y' in 2nd and 3rd columns shown below denotes 'Yes' in response to the questions in the property column. The blank values indicate that the property is either Not Applicable or license does not have clear coverage of the property.

Property	BSD-3-Clause	GPL-3.0-or-later
Are you allowed to use the product released under this license or reproduce it?	Y	Y
Are you allowed to distribute the product released under this license?	Y	Y
Are you allowed to modify or merge the product released under this license?	Y	Y
Are you allowed to merge the product released under this license with other software or data product?	Y	Y
Is sublicensing of the product permitted?	Y	
Is commercial use of the product permitted?	Y	Y
Are you allowed to freely use the product authors' patent?		Y
Are you allowed to place a warranty on the product or it's extensions?		Y

Comparing the properties of two licenses

4. **How to use the Select-A-License tool?**
   Select-A-License is a decision-support tool that can help in selecting appropriate licenses for software and data products. Login is not required for using it. Users respond to a set of questions presented by the tool on the basis of which the tool recommends an appropriate license. The tool also shows the license text for the suggested licenses.

   The screenshots below show the examples of data product related license and the software product related licenses suggested by the tool based on the responses provided by the user.

   The recommendations presented by the tool are hyperlinked to the license text files.

Home Add Product Catalog CompChecker Select-A-License Message Board Add Blog Blogs About Us Contact Us Staging Area

Welcome ritu.aroraut My Profile Logout

You can use the Select-A-License tool for deciding on the appropriate licenses for your software and data products. To begin using this tool, you can click on the "Choose Your License" button and respond to the questions posed. Based on your responses, appropriate license/s meeting your criteria will be displayed, and the displayed license name will be hyperlinked to the license text for your convenience.

Choose Your License

What is your product type?

Software **Data**

Do you want to release the data with copyright/s and/or related rights?

Yes **No**

Do you own the copyright and related rights on the data and all the parts within it?

Yes **No**

Are others allowed to make derivative products using your data?

Yes **No**

Are others allowed to use your data for commercial purposes?

Yes **No**

We recommend the following option/s for the license. Please feel free to click on the license name/s to see the license text.

Creative Commons Attribution-NoDerivs (CC-BY-ND)

License suggested for a data product according to the responses provide by the user

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for your convenience.

Choose Your License

What is your product type?

Software **Data**

Do you require that others release any derived products or modified versions of your code under a compatible license?

Yes **No**

Is sublicensing of the product permitted?
● Yes ○ No or N/A

Do you allow others to freely use your product's patent?
○ Yes ● No or N/A

Do you allow others to place a warranty on the product or it's extensions?
○ Yes ● No or N/A

Should the license assure that the authors cannot be held liable for any damages?
● Yes ○ No or N/A

Should the license prohibit others from using the product's logos or trademark?
● Yes ○ No or N/A

Is it required to preserve the product's copyright notice and attribute the copyright to the relevant authors?
● Yes ○ No or N/A

Is it required to document the changes made to the product?
○ Yes ● No or N/A

Can the derivatives of the product be distributed under non-GPL Copyleft licenses?
● Yes ○ No or N/A

Do you allow others to link your product with other products (interoperability)?
● Yes ○ No or N/A

Submit

We recommend the following option/s for the license. Please feel free to click on the license name/s to see the license text.

BSD-3-Clause	BSD-4-Clause	BSD-4-Clause-UC
curl	MIT-CMU	NTP
X11	XFree86-1.1	

Licenses suggested for a software product according to the responses provide by the user

5. **How to get further help on using Opuntia?**

Please contact Ritu Arora by emailing at the following id with "Opuntia" in the subject-line: ritu@wayne.edu .