


```
<link href="https://images-eu.ssl-images-amazon.com" rel="dns-prefetch"/>
<link href="https://m.media-amazon.com" rel="dns-prefetch"/>
<link href="https://completion.amazon.com" rel="dns-prefetch"/>
<!-- sp:end-feature:cs-optimization -->
<!-- sp:feature:cs:head-open-part2 -->
<!-- sp:end-feature:cs:head-open-part2 -->
<!-- sp:feature:au:assets -->
<link href="https://m.media-amazon.com/images/I/11EI05IGgaL_RC|01ZTHTZ0bnL.css,41tGz3DNCRl.css,31ufSRDeTSL.css,013z33uKh2L.css,017DsKjN07L.css,0131vqwP5UL.css,41EW001B79L.css,11TiuySqr6L.css,01ElnPiDxWL.css,110jqw-j69L.css,01Dm5eKVxwL.css,01IdKcBuAdL.css,01y-
XAIi+2L.css,21P6CS3l9LL.css,01oDR3IULNL.css,41Axm2+z87L.css,01XPH7k60-L.css,01smHc51S9L.css,21aPhFy+riL.css,11gneA3Mt3L.css,21fecG8pUzL.css,11a5wZbuKrL.css,01CFUGsA-YL.css,31C80TiXaLL.css,11qour3ND0L.css,11gKCKCKQV+L.css,11061HxnEvL.css,11oHt2HYxnl.css,01uPgW4sNAL.css,11J0tnL-
6eL.css,116v6uYvN6L.css,11jtXRmpwL.css,010rWuRrZ-L.css,21uwtfqr5aL.css,110yqG8YigL.css,11K24e07g4L.css,11F2+0BzYL.css,01890+VwK8L.css,11Y05DTEl6L.css,01cbS3UK11L.css,21F85am0yFL.css,01giMEP+djL.css_.css?AUIClients/AmazonUI&amp;ZkPo91z8#not-trident.388250-T1.577951-T1"
rel="stylesheet">
<script>
(function(d,f,R,H){function x(a){A&&A.tag&&A.tag(k(":", "au"),a))}function n(a,b){A&&A.count&&A.count("au: "+a,0===b?0:b||(A.count("au: "+a)||0)+1)}function t(a){try{return a.test(navigator.userAgent)}catch(b){return!1}}function u(a){return"function"===typeof a}function B(a,b,c)
{a.addEventListener?a.addEventListener(b,c,!1):a.attachEvent&&a.attachEvent("on"+b,c)}function k(a,b,c,d){b=b&&c?b+a+c:b|c;return d?k(a,b,d):b}function I(a,b,c){try{Object.defineProperty(a,b,{value:c,writable:!1})}catch(y){a[b]=
c}return c}function ta(a,b,c){var d=c-a.length,g=function(){d--||((S.push(b),T||(setTimeout(da,0),T=!0)));for(g());c--;ea[a[c]]?g():((C[a[c]]=C[a[c]]||[]).push(g))}function ua(a,b,c,d,g){var e=f.createElement(a?"script":"link");B(e,"error",d);g&&B(e,"load",g);a?
(e.type="text/javascript",e.async=!0,c&&AUIClients|images[/I/.test(b)&&e.setAttribute("crossorigin","anonymous"),e.src=b):(e.rel="stylesheet",e.href=b);f.getElementsByTagName("head")[0].appendChild(e)}function fa(a,b){return function(c,y){function g(){ua(b,
c,e,function(b){U?n("resource_unload"):e?(e=!1,n("resource_retry"),g()):n("resource_error"),a.log("Asset failed to load: "+c);b&&b.stopPropagation?b.stopPropagation():d.event&&(d.event.cancelBubble=!0),y)}if(ha[c])return!1;ha[c]=!0;n("resource_count");var
e=!0;return!g()}}function va(a,b,c){for(var d={name:a,guard:function(c){return b.guardFatal(a,c)},guardTime:function(a){return b.guardTime(a)},logError:function(c,e,d){b.logError(c,e,d,a)}},g=[],e=0;e<c.length;e++)J.hasOwnProperty(c[e])&&(g[e]=
V.hasOwnProperty(c[e])?V[c[e]](J[c[e]],d):J[c[e]]);return g}function D(a,b,c,y,g){return function(e,f){function n(){var a=null;y?a=f:u(f)&&(m.start=w()),a=f.apply(d,va(e,l,h)),m.end=w());if(b){J[e]=a;a=e;for(ea[a]=!0;(C[a]||[]).length)<C[a].shift();delete C[a]}m.done=!0}var
l=g||this;u(e)&&(f=e,e=H);b&&(e=e?e.replace(ia,""): "__NONAME__",W.hasOwnProperty(e)&&l.error(k(" ", reregistered by " ",k(" " by ",e+" already registered",W[e]),l.attribution),e),W[e]=l.attribution);for(var h=[],r=0;r<a.length;r++)h[r]=
a[r].replace(ia,"");var m=E[e]||"anon"+ ++wa]={depend:h,registered:w(),namespace:l.namespace};e&&xa.hasOwnProperty(e);c?n():ta(h,l.guardFatal(e,n),e);return{decorate:function(a){V[e]=l.guardFatal(e,a)}}}function ja(a){return function(){var
b=Array.prototype.slice.call(arguments);return{execute:D(b,l1,a,l1,this),register:D(b,l0,a,l1,this)}}}function X(a,b){return function(c,d){d||(d=c,c=H);var g=this.attribution;return function(){z.push(b)||{attribution:g,name:c,logLevel:a}};var e=d.apply(this,arguments);
z.pop();return e}}function K(a,b){this.load={js:fa(this,l0),css:fa(this)};I(this,"namespace",b);I(this,"attribution",a)}function ka(){f.body?v.trigger("a-bodyBegin"):setTimeout(ka,20)}function F(a,b){a.className=Y(a,b)+" "+b}function Y(a,b){return(" "+a.className+" ").split(" "+b+"
").join(" ").replace(/\^ |$g,"")}function la(a){try{return a()}catch(b){return!1}}function L(){if(M){var a={w:d.innerWidth||h.clientWidth,h:d.innerHeight||h.clientHeight};<Math.abs(a.w-Z.w)||50<a.h-Z.h?(Z=a,N=4,(a=m.mobile||
m.tablet?450<a.w&&a.w>a.h:1250<a.w)?F(h,"a-ws")):0<N&&(N--,ma=setTimeout(L,16))}}function ya(a){(M=a===H?!M:!!a)&&L()}function za(){return M}"use strict";var O=R.now=R.now||function(){return+new R},w=function(a){return a&&a.now?a.now.bind(a):0}
(d.performance),P=w()),xa={},p=d.AmazonUIPageJS||d.P;if(p&&p.when&&p.register){P=[];for(var q=f.currentScript;q=q.parentElement;q.id&&P.push(q.id);return p.log("A copy of P has already been loaded on this page.", "FATAL",P.join(" ")))var A=
d.ue;x(x)("au: build_date:3.23.1-2023-02-13");var S=[],Aa=[],T=!1;var da=function(){for(var a=setTimeout(da,0),b=0();Aa.length|S.length;if(S.shift())(,50<0)-(b)return;clearTimeout(a);T=!1;var ea={},C={},ha={},U=!1;B(d,"beforeunload",function(){U=!0;setTimeout(function(){
U=!1},1E4)});var ia=/^prv:/,W={},J={},V={},E={},wa=0,aa=String.fromCharCode(92),z=[],na=!0,oa=d.onerror;d.onerror=function(a,b,c,y,g){g&&"object"===typeof g||(g=Error(a,b,c),g.columnNumber=y,g.stack=b|c|y?k(aa,g.message,"at "+
k(":",b,c,y)):H);var e=z.pop()||{};g.attribution=k(":",g.attribution|e.attribution,e.name);g.logLevel=e.logLevel;g.attribution&&console&&console.log([g.logLevel||"ERROR",a,"thrown by",g.attribution].join(" "));z=[];oa&&(e=
J].slice.call(arguments),e[4]=g,oa.apply(d,e));K.prototype={logError:function(a,b,c,y){b={message:b,logLevel:c||"ERROR",attribution:k(":",this.attribution,y)};if(d.ueLogError)return d.ueLogError(a|b,a?b:null),!0;console&&console.error&&(console.log(b),console.error(a));
return!1},error:function(a,b,c,d){a=Error(k(":",d,a,c));a.attribution=k(":",this.attribution,b);throw a};guardError:X(),guardFatal:X("FATAL"),guardCurrent:function(a){var b=z[z.length-1];return b?X(b.logLevel,b).call(this,a):a},guardTime:function(a){var b=z[z.length-
1],c=b&&b.name;return c&&c in E?function(){var b=w(),d=a.apply(this,arguments);E[c].async=(E[c].async||0)+w()-b;return d}:a},log:function(a,b,c){return this.logError(null,a,b,c)},declare:D([],!0,!0,!0),register:D([],!0),execute:D([]),
AUI_BUILD_DATE:"3.23.1-2023-02-13",when:ja(),now:ja(!0),trigger:function(a,b,c){var f=O();this.declare(a,{data:b,pageElapsedTime:f-(d.aPageStart||NaN),triggerTime:f});c&&c.instrument&&G.when("prv:a-logTrigger").execute(function(b){b(a)}),handleTriggers:function()
{this.log("handleTriggers deprecated")},attributeErrors:function(a){return new K(a)},_namespace:function(a,b){return new K(a,b)},setPriority:function(a){na?na=!1:this.log("setPriority only accept the first call.")};var v=I(d,"AmazonUIPageJS",
new K);var G=v._namespace("PageJS","AmazonUI");G.declare("prv:p-debug",E);v.declare("p-recorder-events",[]);v.declare("p-recorder-stop",function(){});I(d,"P",v);ka();if(f.addEventListener){var pa;f.addEventListener("DOMContentLoaded",pa=function(){v.trigger("a-
domready");f.removeEventListener("DOMContentLoaded",pa,!1),!1)}var h=f.documentElement,ba=function(){var a=["O","ms","Moz","Webkit"],b=f.createElement("div");return{testGradients:function(){return!0},test:function(c){var d=c.charAt(0).toUpperCase()+
c.substr(1);c=(a.join(d+" "+d+" "+c).split(" ");for(d=c.length;d--;)if("===b.style[c[d]]")return!0;return!1},testTransform3d:function(){return!0}})}(p=h.className;var qa=/^(^ )a-mobile( |$)/.test(p),ra=/^(^ )a-tablet( |$)/.test(p),m={audio:function()
{return!!f.createElement("audio").canPlayType},video:function(){return!!f.createElement("video").canPlayType},canvas:function(){return!!f.createElement("canvas").getContext},svg:function(){return!!f.createElementNS&&!!f.createElementNS(" http://www.w3.org/2000/svg",
"svg").createSVGRect},offline:function(){return navigator.hasOwnProperty&&navigator.hasOwnProperty("onLine")&&navigator.onLine},dragDrop:function(){return"draggable"in f.createElement("span")},geolocation:function(){return!!navigator.geolocation},history:function(){return!
!d.history||!d.history.pushState}),webworker:function(){return!d.Worker},autofocus:function(){return"autofocus"in f.createElement("input")},inputPlaceholder:function(){return"placeholder"in f.createElement("input")},textareaPlaceholder:function(){return"placeholder"in
f.createElement("textarea")},localStorage:function(){return"localStorage"in d&&null!=d.localStorage},orientation:function(){return"orientation"in d},touch:function(){return"ontouchend"in f},gradients:function(){return ba.testGradients()},hires:function(){var
a=d.devicePixelRatio&&1.5<=d.devicePixelRatio||d.matchMedia&&d.matchMedia("(min-resolution:144dpi)").matches;n("hiRes"+(qa?"Mobile":ra?"Tablet": "Desktop"),a?1:0);return a},transform3d:function(){return ba.testTransform3d()},touchScrolling:function(){return t(/Windowshop|android|OS
([5-9]|[1-9][0-9]+)(_[0-9]{1,2})+ like Mac OS X|SOFTWARE=([5-9]|[1-9][0-9]+)(. [0-9]{1,2})+. *DEVICE=iPhone|Chrome|Silk|Firefox|Trident.+?; Touch/i)},
ios:function(){return t(/OS [1-9][0-9]*(_[0-9]*)+ like Mac OS X/i)&&!t(/trident|Edge/i)},android:function(){return t(/android.([1-9]|[L-Z])/i)&&!t(/trident|Edge/i)},mobile:function(){return qa},tablet:function(){return ra},rtl:function(){return"rtl"===h.dir}};for(q in
m)m.hasOwnProperty(q)&&(m[q]=la(m[q]));for(var ca="textShadow textStroke boxShadow borderRadius borderImage opacity transform transition".split(" "),Q=0;Q<ca.length;Q++)m[ca[Q]]=la(function(){return ba.test(ca[Q])});var M=!0,ma=0,Z=
{w:0,h:0},N=4;L());B(d,"resize",function(){clearTimeout(ma);N=4;L()});var sa={getItem:function(a){try{return d.localStorage.getItem(a)}catch(b){}},setItem:function(a,b){try{return d.localStorage.setItem(a,b)}catch(c){}};h.className=Y(h,"a-no-js");F(h,"a-js");!t(/OS [1-8](_[0-9]*)+
like Mac OS X/i)||d.navigator.standalone||t(/safari/i)||F(h,"a-ember");p=[];for(q in m)m.hasOwnProperty(q)&&m[q]&&p.push("a-"+q.replace(/([A-Z])/g,function(a){return"-"+a.toLowerCase()}));F(h,p.join(" "));h.setAttribute("data-ai-build-date",
"3.23.1-2023-02-13");v.register("n-detect".function(){return{capabilities:m.localStorage&&sa.toggleResponsiveGrid:va.responsiveGridEnabled:za}}):t(/UCBrowser/i)||m.localStorage&&F(h.sa.getItem("a-font-class")):v.declare("a-event-revised-
```

```
names=soup.find_all('span',class_='a-profile-name')
names
```

```
[<span class="a-profile-name">Mr. M</span>,
<span class="a-profile-name">Mukesh</span>,
<span class="a-profile-name">Mr. M</span>,
<span class="a-profile-name">Mr. M</span>,
<span class="a-profile-name">AVI deOry<span class="a-icon a-profile-verified-badg"><span class="a-profile-verified-text"></span></span></span>,
<span class="a-profile-name">AVI deOry</span>,
<span class="a-profile-name">Harsh Singh</span>,
<span class="a-profile-name">Mukesh</span>,
<span class="a-profile-name">Jyoti Jitendra Mali</span>,
<span class="a-profile-name">Jayant</span>,
<span class="a-profile-name">Rohit D.</span>,
<span class="a-profile-name">Rohit D.</span>,
<span class="a-profile-name">Aman</span>,
<span class="a-profile-name">Aman</span>,
<span class="a-profile-name">Akshay</span>,
<span class="a-profile-name">Akshay</span>,
<span class="a-profile-name">Vishnu G.</span>]
```

```
len(names)
```

```
17
```

```
import pandas as pd
df=pd.DataFrame(names,columns={'Customer names'})
df
```

```
/usr/local/lib/python3.8/dist-packages/pandas/core/internals/construction.py:540: VisibleDeprecationWarning: Creating an ndarray from ragged nested sequences (which is a list-or-tuple of 1
values = np.array([convert(v) for v in values])

Customer names
0      [Mr. M]
1      [Mukesh]
2      [Mr. M]
3      [Mr. M]
4      [AVI deOry, []]
5      [AVI deOry]
6      [Harsh Singh]
7      [Mukesh]
8      [Jyoti Jitendra Mali]
9      [Jayant]
10     [Rohit D.]
11     [Rohit D.]
12     [Aman]
13     [Aman]
14     [Akshay]
15     [Akshay]
16     [Vishnu G.]

df=df.drop_duplicates(ignore_index=True)
df

Customer names
0      [Mr. M]
1      [Mukesh]
2      [AVI deOry, []]
3      [AVI deOry]
4      [Harsh Singh]
5      [Jyoti Jitendra Mali]
6      [Jayant]
7      [Rohit D.]
8      [Aman]
9      [Akshay]
10     [Vishnu G.]

df=df.drop(2,axis=0)
df

Customer names
0      [Mr. M]
1      [Mukesh]
3      [AVI deOry]
4      [Harsh Singh]
5      [Jyoti Jitendra Mali]
6      [Jayant]
7      [Rohit D.]
8      [Aman]
9      [Akshay]
10     [Vishnu G.]

title=soup.find_all('a',class_='review-title')[1:-1]
title
```

```
[<a class="a-size-base a-link-normal review-title a-color-base review-title-content a-text-bold" data-hook="review-title" href="/gp/customer-reviews/R371SN6W8QAC6G?ASIN=B0BDJ22G36">
<span>Purchased this only for “Dynamic Island”</span>
</a>,
<a class="a-size-base a-link-normal review-title a-color-base review-title-content a-text-bold" data-hook="review-title" href="/gp/customer-reviews/R385I4VGIBL0LB?ASIN=B0BDJ22G36">
<span>Best iPhone yet.</span>
</a>,
<a class="a-size-base a-link-normal review-title a-color-base review-title-content a-text-bold" data-hook="review-title" href="/gp/customer-reviews/R1PCV1GDBFJTED?ASIN=B0BDJ22G36">
<span>battery got discharged very fast in about 14-16 hours while watching videos online</span>
</a>,
<a class="a-size-base a-link-normal review-title a-color-base review-title-content a-text-bold" data-hook="review-title" href="/gp/customer-reviews/R2HN73V8ZI6BQ0?ASIN=B0BDJ22G36">
<span>Sound quality is very very good. It's nearer to Dolby.</span>
</a>,
<a class="a-size-base a-link-normal review-title a-color-base review-title-content a-text-bold" data-hook="review-title" href="/gp/customer-reviews/R19WDYE7AYD5XR?ASIN=B0BDJ22G36">
<span>Value for money</span>
</a>,
<a class="a-size-base a-link-normal review-title a-color-base review-title-content a-text-bold" data-hook="review-title" href="/gp/customer-reviews/R218J38PKF062L?ASIN=B0BDJ22G36">
<span>Welcome to "Dynamic Island"</span>
</a>,
<a class="a-size-base a-link-normal review-title a-color-base review-title-content a-text-bold" data-hook="review-title" href="/gp/customer-reviews/RVA5TNY0VGFM?ASIN=B0BDJ22G36">
<span>Poor camera quality</span>
</a>,
<a class="a-size-base a-link-normal review-title a-color-base review-title-content a-text-bold" data-hook="review-title" href="/gp/customer-reviews/REEEVMVFLK5AX?ASIN=B0BDJ22G36">
<span>iPhone 14 pro max</span>
</a>]
```

len(title)

10

```
#Data filtering
#Data cleaning
r_title=[]
for i in range(0,len(title)):
    r_title.append(title[i].get_text()[1:-1])
r_title
```

```
['Purchased this only for “Dynamic Island”',
 'Best iPhone yet.',
 'battery got discharged very fast in about 14-16 hours while watching videos online',
 'Sound quality is very very good. It's nearer to Dolby.',
 'Value for money',
 'Welcome to "Dynamic Island"',
 'Poor camera quality',
 'iPhone 14 pro max']
```

len(r_title)

10

```
date=soup.find_all('span',class_='review-date')[2:]
date
```

```
[<span class="a-size-base a-color-secondary review-date" data-hook="review-date">Reviewed in India IN on 25 January 2023</span>,
<span class="a-size-base a-color-secondary review-date" data-hook="review-date">Reviewed in India IN on 24 September 2022</span>,
<span class="a-size-base a-color-secondary review-date" data-hook="review-date">Reviewed in India IN on 25 November 2022</span>,
<span class="a-size-base a-color-secondary review-date" data-hook="review-date">Reviewed in India IN on 16 January 2023</span>,
<span class="a-size-base a-color-secondary review-date" data-hook="review-date">Reviewed in India IN on 3 January 2023</span>,
<span class="a-size-base a-color-secondary review-date" data-hook="review-date">Reviewed in India IN on 23 January 2023</span>,
<span class="a-size-base a-color-secondary review-date" data-hook="review-date">Reviewed in India IN on 21 September 2022</span>,
<span class="a-size-base a-color-secondary review-date" data-hook="review-date">Reviewed in India IN on 12 January 2023</span>,
<span class="a-size-base a-color-secondary review-date" data-hook="review-date">Reviewed in India IN on 29 December 2022</span>,
<span class="a-size-base a-color-secondary review-date" data-hook="review-date">Reviewed in India IN on 30 December 2022</span>]
```

```
review_date=[]
for i in range(0,len(date)):
    #review_date.append(date[i].get_text()) # for full data
    review_date.append(date[i].get_text().replace('Reviewed in India IN on ',''))
```

review_date

```
[' 25 January 2023',
 ' 24 September 2022',
 ' 25 November 2022',
 ' 16 January 2023',
 ' 3 January 2023',
 ' 23 January 2023',
 ' 21 September 2022',
 ' 12 January 2023',
 ' 29 December 2022',
 ' 30 December 2022']
```

df

Customer names	
0	[Mr. M]
1	[Mukesh]
2	[AVI deOry, []]
3	[AVI deOry]
4	[Harsh Singh]
5	[Jyoti Jitendra Mali]
6	[Jayant]
7	[Rohit D.]
8	[Aman]
9	[Akshay]
10	[Vishnu G.]

```
len(r_title)

10

df['Review Title']=r_title
df['Review Dates']=review_date
df
```

Customer names		Review Title	Review Dates
0	[Mr. M]	\nGreat\n	25 January 2023
1	[Mukesh]	\nPurchased this only for “Dynamic Island”\n	24 September 2022
3	[AVI deOry]	\nBest iPhone yet.\n	25 November 2022
4	[Harsh Singh]	\nbattery got discharged very fast in about 14...	16 January 2023
5	[Jyoti Jitendra Mali]	\nSound quality is very very good. It's neare...	3 January 2023
6	[Jayant]	\nValue for money\n	23 January 2023
7	[Rohit D.]	\nWelcome to "Dynamic Island"\n	21 September 2022
8	[Aman]	\nPoor camera quality\n	12 January 2023
9	[Akshay]	\niPhone 14 pro max\n	29 December 2022
10	[Vishnu G.]	\nEverything Top Notch\n	30 December 2022

```
rating=soup.find_all('i',class_='review-rating')[2:]
rating
```

```
[<i class="a-icon a-icon-star a-star-5 review-rating" data-hook="review-star-rating"><span class="a-icon-alt">5.0 out of 5 stars</span></i>,
<i class="a-icon a-icon-star a-star-4 review-rating" data-hook="review-star-rating"><span class="a-icon-alt">4.0 out of 5 stars</span></i>,
<i class="a-icon a-icon-star a-star-5 review-rating" data-hook="review-star-rating"><span class="a-icon-alt">5.0 out of 5 stars</span></i>,
<i class="a-icon a-icon-star a-star-3 review-rating" data-hook="review-star-rating"><span class="a-icon-alt">3.0 out of 5 stars</span></i>,
<i class="a-icon a-icon-star a-star-5 review-rating" data-hook="review-star-rating"><span class="a-icon-alt">5.0 out of 5 stars</span></i>,
<i class="a-icon a-icon-star a-star-5 review-rating" data-hook="review-star-rating"><span class="a-icon-alt">5.0 out of 5 stars</span></i>,
<i class="a-icon a-icon-star a-star-5 review-rating" data-hook="review-star-rating"><span class="a-icon-alt">5.0 out of 5 stars</span></i>,
<i class="a-icon a-icon-star a-star-3 review-rating" data-hook="review-star-rating"><span class="a-icon-alt">3.0 out of 5 stars</span></i>,
<i class="a-icon a-icon-star a-star-5 review-rating" data-hook="review-star-rating"><span class="a-icon-alt">5.0 out of 5 stars</span></i>,
<i class="a-icon a-icon-star a-star-5 review-rating" data-hook="review-star-rating"><span class="a-icon-alt">5.0 out of 5 stars</span></i>]
```

```
len(rating)

12
```

```
r_rating=[]
for i in range(0,len(rating)):
    r_rating.append(rating[i].get_text())
r_rating

['5.0 out of 5 stars',
'4.0 out of 5 stars',
'5.0 out of 5 stars',
'3.0 out of 5 stars',
'5.0 out of 5 stars',
'5.0 out of 5 stars',
'5.0 out of 5 stars',
'3.0 out of 5 stars',
```

'5.0 out of 5 stars',
'5.0 out of 5 stars']

df

	Customer names	Review Title	Review Dates
0	[Mr. M]	\nGreat\n	25 January 2023
1	[Mukesh]	\nPurchased this only for "Dynamic Island"\n	24 September 2022
3	[AVI deOry]	\nBest iPhone yet.\n	25 November 2022
4	[Harsh Singh]	\nbattery got discharged very fast in about 14...	16 January 2023
5	[Jyoti Jitendra Mali]	\nSound quality is very very good. It's neare...	3 January 2023
6	[Jayant]	\nValue for money\n	23 January 2023
7	[Rohit D.]	\nWelcome to "Dynamic Island"\n	21 September 2022
8	[Aman]	\nPoor camera quality\n	12 January 2023
9	[Akshay]	\niPhone 14 pro max\n	29 December 2022
10	[Vishnu G.]	\nEverything Top Notch\n	30 December 2022

```
df['Rating']=r_rating
df
```

	Customer names	Review Title	Review Dates	Rating
0	[Mr. M]	\nGreat\n	25 January 2023	5.0 out of 5 stars
1	[Mukesh]	\nPurchased this only for "Dynamic Island"\n	24 September 2022	4.0 out of 5 stars
3	[AVI deOry]	\nBest iPhone yet.\n	25 November 2022	5.0 out of 5 stars
4	[Harsh Singh]	\nbattery got discharged very fast in about 14...	16 January 2023	3.0 out of 5 stars
5	[Jyoti Jitendra Mali]	\nSound quality is very very good. It's neare...	3 January 2023	5.0 out of 5 stars
6	[Jayant]	\nValue for money\n	23 January 2023	5.0 out of 5 stars
7	[Rohit D.]	\nWelcome to "Dynamic Island"\n	21 September 2022	5.0 out of 5 stars
8	[Aman]	\nPoor camera quality\n	12 January 2023	3.0 out of 5 stars
9	[Akshay]	\niPhone 14 pro max\n	29 December 2022	5.0 out of 5 stars
10	[Vishnu G.]	\nEverything Top Notch\n	30 December 2022	5.0 out of 5 stars

```
colour=soup.find_all('a',class_='a-color-secondary')[4:-2]
colour
```

[Report abuse, Colour: Space Black<i aria-label="|" class="a-icon a-icon-text-separator" role="img"></i>Size: 128 GB, Report abuse, Report abuse, Report abuse, Report abuse, Colour: Deep Purple<i aria-label="|" class="a-icon a-icon-text-separator" role="img"></i>Size: 128 GB, Report abuse, Colour: Space Black<i aria-label="|" class="a-icon a-icon-text-separator" role="img"></i>Size: 256 GB, Report abuse]

len(colour)

10

```
review_colour=[]
for i in range(0,len(colour)):
    review_colour.append(colour[i].get_text())
review_colour
```

['Colour: Deep PurpleSize: 128 GB',
'Colour: GoldSize: 128 GB',
'Colour: Space BlackSize: 128 GB',
'Colour: Deep PurpleSize: 128 GB',
'Colour: Space BlackSize: 256 GB',
'Colour: GoldSize: 128 GB']

```
df['colour']=colour
df
```

	Customer names	Review Title	Review Dates	Rating	Tag	Description	Helpful	colour
0	[Mr. M]	\nGreat\n	25 January 2023	5.0 out of 5 stars	[Customer reviews]	\n, [Apple hasn't made any bones about the fa...	\n Helpful]	[Report abuse]
1	[Mukesh]	\nPurchased this only for "Dynamic Island"\n	24 September 2022	4.0 out of 5 stars	[Verified Purchase]	[[\n, \n, <div class="cr-media-status-contain...	\n Helpful]	[Colour: Space Black, [], Size: 128 GB]
3	[AVI deOry]	\nBest iPhone yet.\n	25 November 2022	5.0 out of 5 stars	[Verified Purchase]	\n, [Upgraded from my galaxy S8+ so I could f...	\n Helpful]	[Report abuse]
4	[Harsh Singh]	\nbattery got discharged very fast in about 14...	16 January 2023	3.0 out of 5 stars	[Verified Purchase]	\n, [I bought iPhone 14 pro max on 06 Jan 23 ...	\n Helpful]	[Report abuse]
5	[Jyoti Jitendra Mali]	\nSound quality is very very good. It's neare...	3 January 2023	5.0 out of 5 stars	[Verified Purchase]	\n, [I like the speaker very much, while list...	\n Helpful]	[Report abuse]
6	[Jayant]	\nValue for money\n	23 January 2023	5.0 out of 5 stars	[Verified Purchase]	\n, [Good product.], \n]	\n Helpful]	[Report abuse]
7	[Rohit D.]	\nWelcome to "Dynamic Island"\n	21 September 2022	5.0 out of 5 stars	[Verified Purchase]	\n, [The delivery was a bit delayed consideri...	\n Helpful]	[Colour: Deep Purple, [], Size: 128 GB]
8	[Aman]	\nPoor camera quality\n	12 January 2023	3.0 out of 5 stars	[Verified Purchase]	\n, [Poor camera not good], \n]	\n Helpful]	[Report abuse]
9	[Akshay]	\niPhone 14 pro max\n	29 December 2022	5.0 out of 5 stars	[Verified Purchase]	\n, [14 pro max capable of taking best photos...	\n Helpful]	[Colour: Space Black, [], Size: 256 GB]
10	[Vishnu G.]	\nEverything Top Notch\n	30 December 2022	5.0 out of 5 stars	[Verified Purchase]	\n, [Upgraded from iPhone 6 Plus to iPhone 14...	\n Helpful]	[Report abuse]

```
verified_Purchase=soup.find_all('span',class_='a-color-state')
verified_Purchase
```

```
[<span class="a-color-state">Customer reviews</span>,
<span class="a-size-mini a-color-state a-text-bold" data-hook="avp-badge">Verified Purchase</span>,
<span class="a-size-mini a-color-state a-text-bold" data-hook="avp-badge">Verified Purchase</span>,
<span class="a-size-mini a-color-state a-text-bold" data-hook="avp-badge">Verified Purchase</span>,
<span class="a-size-mini a-color-state a-text-bold" data-hook="avp-badge">Verified Purchase</span>,
<span class="a-size-mini a-color-state a-text-bold" data-hook="avp-badge">Verified Purchase</span>,
<span class="a-size-mini a-color-state a-text-bold" data-hook="avp-badge">Verified Purchase</span>,
<span class="a-size-mini a-color-state a-text-bold" data-hook="avp-badge">Verified Purchase</span>,
<span class="a-size-mini a-color-state a-text-bold" data-hook="avp-badge">Verified Purchase</span>,
<span class="a-size-mini a-color-state a-text-bold" data-hook="avp-badge">Verified Purchase</span>]
```

```
len(verified_Purchase)

10
```

```
Tag=[]
for i in range(0,len(verified_Purchase)):
    Tag.append(verified_Purchase[i].get_text())
Tag
```

```
['Customer reviews',
'Verified Purchase',
'Verified Purchase',
'Verified Purchase',
'Verified Purchase',
'Verified Purchase',
'Verified Purchase',
'Verified Purchase',
'Verified Purchase',
'Verified Purchase',
'Verified Purchase']
```

```
df['Tag']=verified_Purchase
df
```


	Customer names	Review Title	Review Dates	Rating	Tag	Description	Helpful	colour
0	[Mr. M]	\nGreat\n	25 January 2023	5.0 out of 5 stars	[Customer reviews]	\n, [Apple hasn't made any bones about the fa...	\n Helpful]	[Report abuse]
1	[Mukesh]	\nPurchased this only for "Dynamic Island"\n	24 September 2022	4.0 out of 5 stars	[Verified Purchase]	[[\n, \n, <div class="cr-media-status-contain...	\n Helpful]	[Colour: Space Black, [], Size: 128 GB]
3	[AVI deOry]	\nBest iPhone yet.\n	25 November 2022	5.0 out of 5 stars	[Verified Purchase]	\n, [Upgraded from my galaxy S8+ so I could f...	\n Helpful]	[Report abuse]
4	[Harsh Singh]	\nbattery got discharged very fast in about 14...	16 January 2023	3.0 out of 5 stars	[Verified Purchase]	\n, [I bought iPhone 14 pro max on 06 Jan 23 ...	\n Helpful]	[Report abuse]
5	[Jyoti Jitendra Mali]	\nSound quality is very very good. It's neare...	3 January 2023	5.0 out of 5 stars	[Verified Purchase]	\n, [I like the speaker very much, while list...	\n Helpful]	[Report abuse]
6	[Jayant]	\nValue for money\n	23 January 2023	5.0 out of 5 stars	[Verified Purchase]	\n, [Good product.], \n]	\n Helpful]	[Report abuse]
7	[Rohit D.]	\nWelcome to "Dynamic Island"\n	21 September 2022	5.0 out of 5 stars	[Verified Purchase]	\n, [The delivery was a bit delayed consideri...	\n Helpful]	[Colour: Deep Purple, [], Size: 128 GB]
8	[Aman]	\nPoor camera quality\n	12 January 2023	3.0 out of 5 stars	[Verified Purchase]	\n, [Poor camera not good], \n]	\n Helpful]	[Report abuse]
9	[Akshay]	\niPhone 14 pro max\n	29 December 2022	5.0 out of 5 stars	[Verified Purchase]	\n, [14 pro max capable of taking best photos...	\n Helpful]	[Colour: Space Black, [], Size: 256 GB]
10	[Vishnu G.]	\nEverything Top Notch\n	30 December 2022	5.0 out of 5 stars	[Verified Purchase]	\n, [Upgraded from iPhone 6 Plus to iPhone 14...	\n Helpful]	[Report abuse]

df

	Customer names	Review Title	Review Dates	Rating	Tag	Description
0	[Mr. M]	\nGreat\n	25 January 2023	5.0 out of 5 stars	[Customer reviews]	\n, [Apple hasn't made any bones about the fa...
1	[Mukesh]	\nPurchased this only for "Dynamic Island"\n	24 September 2022	4.0 out of 5 stars	[Verified Purchase]	[[\n, \n, <div class="cr-media-status-contain...
3	[AVI deOry]	\nBest iPhone yet.\n	25 November 2022	5.0 out of 5 stars	[Verified Purchase]	\n, [Upgraded from my galaxy S8+ so I could f...
4	[Harsh Singh]	\nbattery got discharged very fast in about 14...	16 January 2023	3.0 out of 5 stars	[Verified Purchase]	\n, [I bought iPhone 14 pro max on 06 Jan 23 ...
5	[Jyoti Jitendra Mali]	\nSound quality is very very good. It's neare...	3 January 2023	5.0 out of 5 stars	[Verified Purchase]	\n, [I like the speaker very much, while list...
6	[Jayant]	\nValue for money\n	23 January 2023	5.0 out of 5 stars	[Verified Purchase]	\n, [Good product.], \n]
7	[Rohit D.]	\nWelcome to "Dynamic Island"\n	21 September 2022	5.0 out of 5 stars	[Verified Purchase]	\n, [The delivery was a bit delayed consideri...
8	[Aman]	\nPoor camera quality\n	12 January 2023	3.0 out of 5 stars	[Verified Purchase]	\n, [Poor camera not good], \n]
9	[Akshay]	\niPhone 14 pro max\n	29 December 2022	5.0 out of 5 stars	[Verified Purchase]	\n, [14 pro max capable of taking best photos...
10	[Vishnu G.]	\nEverything Top Notch\n	30 December 2022	5.0 out of 5 stars	[Verified Purchase]	\n, [Upgraded from iPhone 6 Plus to iPhone 14...

```
help=soup.find_all('div',class_='cr-helpful-text')
help
```

```
[<div class="cr-helpful-text">
  Helpful</div>, <div class="cr-helpful-text">
  Helpful</div>, <div class="cr-helpful-text">
  Helpful</div>, <div class="cr-helpful-text">
  Helpful</div>, <div class="cr-helpful-text">
  Helpful</div>, <div class="cr-helpful-text">
  Helpful</div>, <div class="cr-helpful-text">
  Helpful</div>, <div class="cr-helpful-text">
  Helpful</div>, <div class="cr-helpful-text">
  Helpful</div>, <div class="cr-helpful-text">
  Helpful</div>]
```

len(help)

10

```
describe=[]
for i in range(0,len(help)):
    Tag.append(help[i].get_text())
describe
```

[]

```
df['Helpful']=help
df
```

	Customer names	Review Title	Review Dates	Rating	Tag	Description	Helpful
0	[Mr. M]	\nGreat\n	25 January 2023	5.0 out of 5 stars	[Customer reviews]	\n, [Apple hasn't made any bones about the fa...	\n Helpful
1	[Mukesh]	\nPurchased this only for "Dynamic Island"\n	24 September 2022	4.0 out of 5 stars	[Verified Purchase]	[[\n, \n, <div class="cr-media-status-contain...	\n Helpful
3	[AVI deOry]	\nBest iPhone yet.\n	25 November 2022	5.0 out of 5 stars	[Verified Purchase]	\n, [Upgraded from my galaxy S8+ so I could f...	\n Helpful
4	[Harsh Singh]	\nbattery got discharged very fast in about 14...	16 January 2023	3.0 out of 5 stars	[Verified Purchase]	\n, [I bought iPhone 14 pro max on 06 Jan 23 ...	\n Helpful
5	[Jyoti Jitendra Mali]	\nSound quality is very very good. It's neare...	3 January 2023	5.0 out of 5 stars	[Verified Purchase]	\n, [I like the speaker very much, while list...	\n Helpful
6	[Jayant]	\nValue for money\n	23 January 2023	5.0 out of 5 stars	[Verified Purchase]	\n, [Good product.], \n]	\n Helpful
7	[Rohit D.]	\nWelcome to "Dynamic Island"\n	21 September 2022	5.0 out of 5 stars	[Verified Purchase]	\n, [The delivery was a bit delayed consideri...	\n Helpful
8	[Aman]	\nPoor camera quality\n	12 January 2023	3.0 out of 5 stars	[Verified Purchase]	\n, [Poor camera not good], \n]	\n Helpful
9	[Akshay]	\niPhone 14 pro max\n	29 December 2022	5.0 out of 5 stars	[Verified Purchase]	\n, [14 pro max capable of taking best photos...	\n Helpful
10	[Vishnu G.]	\nEverything Top Notch\n	30 December 2022	5.0 out of 5 stars	[Verified Purchase]	\n, [Upgraded from iPhone 6 Plus to iPhone 14...	\n Helpful

df.info()

```
<class 'pandas.core.frame.DataFrame'>
Int64Index: 10 entries, 0 to 10
Data columns (total 7 columns):
#   Column          Non-Null Count  Dtype
---  ---
0    Customer names  10 non-null    object
1    Review Title    10 non-null    object
2    Review Dates    10 non-null    object
3    Rating          10 non-null    object
4    Tag             10 non-null    object
5    Description     10 non-null    object
6    Helpful         10 non-null    object
dtypes: object(7)
memory usage: 640.0+ bytes
```

df

	Customer names	Review Title	Review Dates	Rating	Tag	Description	Helpful
0	[Mr. M]	\nGreat\n	25 January 2023	5.0 out of 5 stars	[Customer reviews]	\n, [Apple hasn't made any bones about the fa...	\n Helpful
1	[Mukesh]	\nPurchased this only for "Dynamic Island"\n	24 September 2022	4.0 out of 5 stars	[Verified Purchase]	[[\n, \n, <div class="cr-media-status-contain...	\n Helpful
3	[AVI deOry]	\nBest iPhone yet.\n	25 November 2022	5.0 out of 5 stars	[Verified Purchase]	\n, [Upgraded from my galaxy S8+ so I could f...	\n Helpful
4	[Harsh Singh]	\nbattery got discharged very fast in about 14...	16 January 2023	3.0 out of 5 stars	[Verified Purchase]	\n, [I bought iPhone 14 pro max on 06 Jan 23 ...	\n Helpful
5	[Jyoti Jitendra Mali]	\nSound quality is very very good. It's neare...	3 January 2023	5.0 out of 5 stars	[Verified Purchase]	\n, [I like the speaker very much, while list...	\n Helpful
6	[Jayant]	\nValue for money\n	23 January 2023	5.0 out of 5 stars	[Verified Purchase]	\n, [Good product.], \n]	\n Helpful
7	[Rohit D.]	\nWelcome to "Dynamic Island"\n	21 September 2022	5.0 out of 5 stars	[Verified Purchase]	\n, [The delivery was a bit delayed consideri...	\n Helpful
8	[Aman]	\nPoor camera quality\n	12 January 2023	3.0 out of 5 stars	[Verified Purchase]	\n, [Poor camera not good], \n]	\n Helpful
9	[Akshay]	\niPhone 14 pro max\n	29 December 2022	5.0 out of 5 stars	[Verified Purchase]	\n, [14 pro max capable of taking best photos...	\n Helpful
10	[Vishnu G.]	\nEverything Top Notch\n	30 December 2022	5.0 out of 5 stars	[Verified Purchase]	\n, [Upgraded from iPhone 6 Plus to iPhone 14...	\n Helpful

df

	Customer names	Review Title	Review Dates	Rating	Tag	Description	Helpful	colour
0	[Mr. M]	\nGreat\n	25 January 2023	5.0 out of 5 stars	[Customer reviews]	\n, [Apple hasn't made any bones about the fa...	\n Helpful]	[Report abuse]
1	[Mukesh]	\nPurchased this only for "Dynamic Island"\n	24 September 2022	4.0 out of 5 stars	[Verified Purchase]	[[\n, \n, <div class="cr-media-status-contain...	\n Helpful]	[Colour: Space Black, [], Size: 128 GB]
3	[AVI deOry]	\nBest iPhone yet.\n	25 November 2022	5.0 out of 5 stars	[Verified Purchase]	\n, [Upgraded from my galaxy S8+ so I could f...	\n Helpful]	[Report abuse]
4	[Harsh Singh]	\nbattery got discharged very fast in about 14...	16 January 2023	3.0 out of 5 stars	[Verified Purchase]	\n, [I bought iPhone 14 pro max on 06 Jan 23 ...	\n Helpful]	[Report abuse]
5	[Jyoti Jitendra Mali]	\nSound quality is very very good. It's neare...	3 January 2023	5.0 out of 5 stars	[Verified Purchase]	\n, [I like the speaker very much, while list...	\n Helpful]	[Report abuse]
6	[Jayant]	\nValue for money\n	23 January 2023	5.0 out of 5 stars	[Verified Purchase]	\n, [Good product.], \n]	\n Helpful]	[Report abuse]
7	[Rohit D.]	\nWelcome to "Dynamic Island"\n	21 September 2022	5.0 out of 5 stars	[Verified Purchase]	\n, [The delivery was a bit delayed consideri...	\n Helpful]	[Colour: Deep Purple, [], Size: 128 GB]
8	[Aman]	\nPoor camera quality\n	12 January 2023	3.0 out of 5 stars	[Verified Purchase]	\n, [Poor camera not good], \n]	\n Helpful]	[Report abuse]
9	[Akshay]	\niPhone 14 pro max\n	29 December 2022	5.0 out of 5 stars	[Verified Purchase]	\n, [14 pro max capable of taking best photos...	\n Helpful]	[Colour: Space Black, [], Size: 256 GB]
10	[Vishnu G.]	\nEverything Top Notch\n	30 December 2022	5.0 out of 5 stars	[Verified Purchase]	\n, [Upgraded from iPhone 6 Plus to iPhone 14...	\n Helpful]	[Report abuse]

Traceback (most recent call last):
File "/usr/local/lib/python3.8/dist-packages/google/colab/data_table.py", line 171, in _repr_mimebundle_
mime_bundle[_JAVASCRIPT_MODULE_MIME_TYPE] = self._gen_js(dataframe)
File "/usr/local/lib/python3.8/dist-packages/google/colab/data_table.py", line 209, in _gen_js
formatted_data = _interactive_table_helper._format_data(# pylint: disable=protected-access
File "/usr/local/lib/python3.8/dist-packages/google/colab/_interactive_table_helper.py", line 342, in _format_data
_to_js(formatted_value, default_formatter, html_encode=html_encode))
File "/usr/local/lib/python3.8/dist-packages/google/colab/_interactive_table_helper.py", line 129, in _to_js
x = x._repr_html_() # pylint: disable=protected-access
TypeError: 'NoneType' object is not callable
Traceback (most recent call last):
File "/usr/local/lib/python3.8/dist-packages/google/colab/data_table.py", line 182, in _repr_javascript_module_
return self._gen_js(self._preprocess_dataframe())
File "/usr/local/lib/python3.8/dist-packages/google/colab/data_table.py", line 209, in _gen_js
formatted_data = _interactive_table_helper._format_data(# pylint: disable=protected-access
File "/usr/local/lib/python3.8/dist-packages/google/colab/_interactive_table_helper.py", line 342, in _format_data
_to_js(formatted_value, default_formatter, html_encode=html_encode))
File "/usr/local/lib/python3.8/dist-packages/google/colab/_interactive_table_helper.py", line 129, in _to_js
x = x._repr_html_() # pylint: disable=protected-access
TypeError: 'NoneType' object is not callable

