

# Step one

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In this step we will create a simple Docker image that will contain a CURL command line tool to send a request to the [google.com](https://www.google.com) website. then we will upload the image to the docker hub. pull the image from the docker hub and create container from it.

run the container and send a request to the [google.com](https://www.google.com) website.

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## 1.1

first we need too create Dockerfile with alpine base image and install curl package.

```
FROM alpine:latest
RUN apk add --update curl
ENTRYPOINT ["curl"]
```

### Results

- [Dockerfile](#)

## 1.2

now we need to push the image to the docker hub.

```
docker build -t curl .
docker tag curl:latest mohamadch91/curl:latest
docker push mohamadch91/curl:latest
```

## Results

```
mohamad@mamads:/mnt/mamads/uni/7/Cloud/HW/cloudComputing-Hws/HW2/step_one$ docker build -t curl .
[+] Building 54.7s (7/7) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 31B
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [internal] load metadata for docker.io/library/alpine:latest
=> [auth] library/alpine:pull token for registry-1.docker.io
=> [1/2] FROM docker.io/library/alpine:latest@sha256:8914eb54f968791faf6a8638949e480fef81e697984fba772b3976835194c6d4
=> => resolve docker.io/library/alpine:latest@sha256:8914eb54f968791faf6a8638949e480fef81e697984fba772b3976835194c6d4
=> => sha256:8914eb54f968791faf6a8638949e480fef81e697984fba772b3976835194c6d4 1.64kB / 1.64kB
=> => sha256:c0d488a800e4127c33ad20d61d7bc21b4097540327217dfab52262adc02380c 528B / 528B
=> => sha256:49176f190c7e9cdb51ac85ab6c6d5e4512352218190cd69b08e6fd803ffbf3da 1.47kB / 1.47kB
=> => sha256:c158987b05517b6f2c5913f3acef1f2182a32345a304fe357e3ace5fadcad715 3.37MB / 3.37MB
=> => extracting sha256:c158987b05517b6f2c5913f3acef1f2182a32345a304fe357e3ace5fadcad715
=> [2/2] RUN apk add --update curl
=> => exporting to image
=> => exporting layers
=> => writing image sha256:2a90e7192b3f3fbfd270d3fe8116cf80fc82373bba6b40617e7980233b2ee3e6
=> => naming to docker.io/library/curl

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them
```

```
mohamad@mamads:/mnt/mamads/uni/7/Cloud/HW/cloudComputing-Hws/HW2/step_one$ docker push mohamadch91/curl:latest
The push refers to repository [docker.io/mohamadch91/curl]
a0ea8088d24f: Pushed
ded7a220bb05: Mounted from library/alpine
latest: digest: sha256:f8426d8f7ec7ddc8b642c0a040918fb2804d4f09d871472c19c731ba23a77246 size: 738
```

## 1.3

now we need to pull the image from the docker hub and create container from it.

### 1.3.1

since we have image on local , delete image from local

```
docker rmi mohamadch91/curl:latest
```

## Results

```
mohamadch91/curl:latest 2a90e7192b3f 14 minutes ago 11.9MB
mohamad@mamads:/mnt/mamads/uni/7/Cloud/HW/cloudComputing-Hws/HW2/step_one$ docker rmi mohamadch91/curl:latest
Untagged: mohamadch91/curl:latest
Untagged: mohamadch91/curl@sha256:f8426d8f7ec7ddc8b642c0a040918fb2804d4f09d871472c19c731ba23a77246
mohamad@mamads:/mnt/mamads/uni/7/Cloud/HW/cloudComputing-Hws/HW2/step_one$ docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
curl latest 2a90e7192b3f 18 minutes ago 11.9MB
mohamad@mamads:/mnt/mamads/uni/7/Cloud/HW/cloudComputing-Hws/HW2/step_one$
```

then we pull the image and run it

### 1.3.2

```
docker pull mohamadch91/curl:latest
docker run -it --name curl mohamadch91/curl:latest google.com
```

## Results

```
mohamad@mamads:/mnt/mamads/uni/7/Cloud/HW/cloudComputing-Hws/HW2/step_one$ docker pull mohamadch91/curl:latest
latest: Pulling from mohamadch91/curl
Digest: sha256:f8426d8f7ec7ddc8b642c0a040918fb2804d4f09d871472c19c731ba23a77246
Status: Image is up to date for mohamadch91/curl:latest
docker.io/mohamadch91/curl:latest
mohamad@mamads:/mnt/mamads/uni/7/Cloud/HW/cloudComputing-Hws/HW2/step_one$ docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
curl latest 2a90e7192b3f 14 minutes ago 11.9MB
mohamadch91/curl latest 2a90e7192b3f 14 minutes ago 11.9MB
```

```
mohamad@mamads:/mnt/mamads/uni/7/Cloud/HW/cloudComputing-Hws$ docker run -it --name curl mohamadch91/curl:latest google.com
<HTML><HEAD><meta http-equiv="content-type" content="text/html; charset=utf-8">
<TITLE>301 Moved</TITLE></HEAD><BODY>
<H1>301 Moved</H1>
The document has moved
<A HREF="http://www.google.com/">here</A>.
</BODY></HTML>
mohamad@mamads:/mnt/mamads/uni/7/Cloud/HW/cloudComputing-Hws$ docker run -it --name curl mohamadch91/curl:latest
```

```
mohamad@mamads:/mnt/mamads/uni/7/Cloud/HW/cloudComputing-HWs$ docker run -it mohamadch91/curl:latest https://www.google.com/
<!doctype html><html itemscope="" itemtype="http://schema.org/WebPage" lang="en-IR"><head><meta content="Search the world's information, including webpages, images, videos and more. Google has m
y special features to help you find exactly what you're looking for." name="description"><meta content="noomp" name="robots"><meta content="text/html; charset=UTF-8" http-equiv="Content-Type"><me
a content="/images/branding/googlelog/1x/googlelog_standard_color_128dp.png" itemprop="image"><title>Google</title><script nonce="K2-KyAg4nlKK94Yi0chI7w">(function(){window.google={kEI: '07eiY4D3B- R
UP0cSHSag', kEXPI: '0,18168,1341241,6059,206,4804,2316,383,246,5,1129120,1197781,613,380096,16115,28684,22431,1361,12317,17582,4998,13226,3849,10622,22741,2370,2711,1593,1279,2742,149,1103,840,190
4310,108,4012,2023,2298,14669,3227,2845,7,29075,4695,1851,15756,3,576,1014,1,5444,804,10668,2652,4,1528,2304,27348,7422,7357,11442,2216,4437,16786,5827,2530,4094,17,4035,3,3541,1,11942,30212,2,1
37,23024,6699,2381,28742,4568,6258,23418,1246,5841,14968,4332,5017,2467,445,2,2,1,26632,8155,7381,2,1470,14490,873,19633,7,1922,5784,3995,19130,2260,1512,8420,4832,15758,10745,107,11706,8324,14,
3890,757,14800,670,1622,1778,3852,1125,4838,4152,700,549,4652,1742,813,1514,281,298,1726,4,1501,2,563,991,970,418,148,559,351,89,399,96,426,1033,43,291,2669,723,925,1411,20,3,261,606,240,2020,
0,135,55,732,517,246,951,1012,1207,947,556,4,6,291,262,567,201,734,1900,79,3,538,599,338,213,157,329,432,167,6,261,764,184,394,1087,1252,5,270,72,890,287,129,90,19,463,2,216,84,160,78,115,9,79,6
305,182,25,2,1102,728,129,340,501,61,512,753,253,1112,1570,1199,104,36,461,12,105,1372,293,2,241,886,130,920,776,423,513,808,1337,337,1457,4,19,136,36,40,2,355,20,176,1776,307,765,677,21,5277385
799192,3311,141,795,19735,1,1,346,3570,15,2,14,2,2,14,46,11,3,5,23946800,2862027,1180116,1964,1007,15666,3101,304,5595,11,3834,6898,72,228', kBL: 'D14b'};google.sn='webhp';google.kHL='en-IR'}}());
unction(){
var f=this||self;var h,k=[];function l(a){for(var b;a&&(a.getAttribute||(b=a.getAttribute("eid"))));a=a.parentNode;return b}[h]function m(a){for(var b=null;a&&(a.getAttribute||(b=a.getAttrib
e("eid"))));a=a.parentNode;return b}
function n(a,b,c,d,g){var e="";c[1]=b.search("&ei=")+l(d),-1==b.search("&ei=")&&(d=m(d))&&(e+=&ei="+d);d="";!c&&f._cshid&&-1==b.search("&cshid=")&&"s!h"!=a&&(d="&cshid="+f._
hid);c=c[1]/"/"+(g[1]&"gen 204")+&atyp=1&Ct="+a+"&cad="+b+"&z="+Date.now()+d;^http://i.test(c)&&"https"==window.location.protocol&&(google.ml&&google.ml(Error("a"),1,1,(src:c,glmm:1)),c="");ret
n c);h=google.kEI;google.getEI=l;google.getEI=m;google.ml=function(){return null};google.log=function(a,b,c,d,g){a=new Image;var e=k.length;k[e]=a;a.onerror=a.onload=a.onabor
function(){delete k[e];a.src=c};google.logUrl=n;}}.call(this);(function(){google.y={};google.sy=[];google.x=function(a,b){if(a)var c=a.id;else{do c=Math.random();while(google.y[c])}google.y[c]
a,b};return!1};google.sx=function(a){google.sy.push(a)};google.lm=[];google.plm=function(a){google.lm.push.apply(google.lm,a)};google.lq=[];google.load=function(a,b,c){google.lq.push([a],b,c)};
oogle.loadAll=function(a,b){google.lq.push([a,b]);google.bx=1;google.lx=function(){}}.call(this);google.f={};(function(){
document.documentElement.addEventListener("submit",function(b){var a;if(a=b.target){var c=a.getAttribute("data-submitfalse");a="1"==c||"a"==c&&a.elements.q.value?10:1}else a=1;a&&(b.prevent
fault(),b.stopPropagation()),10);document.documentElement.addEventListener("click",function(b){var a;if(a=b.target;a&&a!=document.documentElement){if("A"==a.tagName){a=1
==a.getAttribute("data-nohref");break a=a=1;a&&b.preventDefault(),10)}}.call(this);</script><style>#gbar,#user{font-size:13px;padding-top:1px !important;}#gbar{height:22px}#user{padding-bot
```

```
mohamad@mamads:/mnt/mamads/uni/7/Cloud/HW/cloudComputing-HWs$ docker run -it mohamadch91/curl:latest aut.ac.ir
<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML 2.0//EN">
<html><head>
<title>301 Moved Permanently</title>
</head><body>
<h1>Moved Permanently</h1>
<p>The document has moved <a href="https://aut.ac.ir:443/">here</a>.</p>
</body></html>
```

Logs	Inspect	Terminal	Stats
<pre>/ # google.com /bin/sh: google.com: not found / # curl google.com &lt;HTML&gt;&lt;HEAD&gt;&lt;meta http-equiv="content-type" content="text/html; charset=utf-8"&gt; &lt;TITLE&gt;301 Moved&lt;/TITLE&gt;&lt;/HEAD&gt;&lt;BODY&gt; &lt;H1&gt;301 Moved&lt;/H1&gt; The document has moved &lt;A HREF="http://www.google.com/"&gt;here&lt;/A&gt;. &lt;/BODY&gt;&lt;/HTML&gt; / # █</pre>			