joe@nfs:~$ sudo apt install -y tgt
joe@nfs:~$ echo "Create isci target"
Create isci target
joe@nfs:~$ sudo tgtadm --lld iscsi --op new --mode target --tid 1
   > -T iqn.2019-02.com.example:disk
joe@nfs:~$
joe@nfs:$ echo "I have already created a partition to use as my target"
I have already created a partition to use as my target
joe@nfs:$ sudo fdisk -l | grep sda5
/dev/sda5        54978560 57075711  2097152   1G  83 Linux
joe@nfs:$
sudo tgtadm --lld iscsi --op new --mode logicalunit --tid 1 --lun 1 -b /dev/sda5
that command adds my logical unit 'lun1' to the iscsi target id of 1
that command adds my logical unit 'lun1' to the iscsi target id of 1
joe@nfs:~$ sudo tgtadm --mode target --op show
joe@nfs:~$ echo "this will show all your targets. Lun0 is a default controller lun" this will show all your targets. Lun0 is a default controller lun joe@nfs:~$
Type: controller
SCSI ID: IET 00010000
SCSI SN: beaf10
Size: 0 MB, Block size: 1
Online: Yes
Removable media: No
Prevent removal: No
Readonly: No
SWP: No
Thin-provisioning: No
Backin store type: null
Backin store path: None
Backin store flags:

LUN: 1
Type: disk
SCSI ID: IET 00010001
SCSI SN: beaf11
Size: 1074 MB, Block size: 512
Online: Yes
Removable media: No
Prevent removal: No
Readonly: No
SWP: No
Thin-provisioning: No
Backin store type: rdwr
Backin store path: /dev/sda5
Backin store flags:

Account information:
ACL information:
That command just published that target 1, to all IP addresses. You could alternatively replace ALL with an IP or IP/cidr.
saved the configuration to that file, so it will persist across reboots
Going to connect to the iscsi target from this machine
sudo apt install -y open-iscsi
[sudo] password for joe:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  libisns0
The following NEW packages will be installed:
  libisns0 open-iscsi
0 upgraded, 2 newly installed, 0 to remove and 41 not upgraded.
Need to get 390 kB of archives.
After this operation, 2,416 kB of additional disk space will be used.
Get:1 http://mirror.cs.dixie.edu/ubuntu bionic/main amd64 libisns0 amd64 0.97-2build1 [110 kB]
Get:2 http://mirror.cs.dixie.edu/ubuntu bionic/main amd64 open-iscsi amd64 2.0.874-5ubuntu2 [280 kB]
Fetched 390 kB in 0s (3,138 kB/s)
Preconfiguring packages ...
Selecting previously unselected package libisns0:amd64.
(Reading database ... 61504 files and directories currently installed.)
Preparing to unpack .../libisns0_0.97-2build1_amd64.deb ...
Unpacking libisns0:amd64 (0.97-2build1) ...
Selecting previously unselected package open-iscsi.
Preparing to unpack .../open-iscsi_2.0.874-5ubuntu2_amd64.deb ...
Unpacking open-iscsi (2.0.874-5ubuntu2) ...
Processing triggers for ureadahead (0.100.0-20) ...
Setting up libisns0:amd64 (0.97-2build1) ...
Processing triggers for initramfs-tools (0.130ubuntu3) ...
joe@bionic-template:~$ sudo iscsiadm -m discovery -t st -p 144.38.202.197
joe@bionic-template:~$ echo "I queried my iscsi targets ip address"
I queried my iscsi targets ip address
joe@bionic-template:~$
joe@bionic-template:~$ sudo iscsiadm -m node --targetname iqn.2019-02.com.example:disk -p 144.38.202.197 -l

joe@bionic-template:~$ echo "I told iscsi to login to that host"
I told iscsi to login to that host

joe@bionic-template:~$
### ProcPartitions

<table>
<thead>
<tr>
<th>Major</th>
<th>Minor</th>
<th>Blocks</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>0</td>
<td>33554432</td>
<td>sda</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>25390080</td>
<td>sda1</td>
</tr>
<tr>
<td>8</td>
<td>5</td>
<td>1048576</td>
<td>sda5</td>
</tr>
<tr>
<td>8</td>
<td>6</td>
<td>1048576</td>
<td>sda6</td>
</tr>
<tr>
<td>8</td>
<td>7</td>
<td>1048576</td>
<td>sda7</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>1048576</td>
<td>sda8</td>
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<td>8</td>
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<td>1048576</td>
<td>sda9</td>
</tr>
<tr>
<td>11</td>
<td>0</td>
<td>1048575</td>
<td>sr0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>4</td>
<td>fd0</td>
</tr>
<tr>
<td>253</td>
<td>2</td>
<td>1048576</td>
<td>dm-2</td>
</tr>
<tr>
<td>253</td>
<td>3</td>
<td>770048</td>
<td>dm-3</td>
</tr>
<tr>
<td>253</td>
<td>0</td>
<td>4096</td>
<td>dm-0</td>
</tr>
<tr>
<td>253</td>
<td>1</td>
<td>385024</td>
<td>dm-1</td>
</tr>
<tr>
<td>253</td>
<td>4</td>
<td>4096</td>
<td>dm-4</td>
</tr>
<tr>
<td>253</td>
<td>5</td>
<td>385024</td>
<td>dm-5</td>
</tr>
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<td>253</td>
<td>6</td>
<td>4096</td>
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<td>7</td>
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<td>4096</td>
<td>dm-9</td>
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<tr>
<td>253</td>
<td>10</td>
<td>512000</td>
<td>dm-10</td>
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<tr>
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<td>11</td>
<td>4096</td>
<td>dm-11</td>
</tr>
<tr>
<td>253</td>
<td>12</td>
<td>512000</td>
<td>dm-12</td>
</tr>
<tr>
<td>253</td>
<td>13</td>
<td>512000</td>
<td>dm-13</td>
</tr>
<tr>
<td>8</td>
<td>16</td>
<td>1048576</td>
<td>sdb</td>
</tr>
</tbody>
</table>

**Output:**
```
See the new sdb. YAY
```

echo "format, mount, and fstab"

sudo mkfs.ext4 /dev/sdb

Creating filesystem with 262144 4k blocks and 65536 inodes
Filesystem UUID: 055af23a-a13b-4d26-88e1-d58a8409b02a
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376

Allocating group tables: done
Writing inode tables: done
Creating journal (8192 blocks): done
Writing superblocks and filesystem accounting information: done

mkdir testmount
sudo mount /dev/sdb testmount/