

Project môn HDH MNM

Nghiên cứu Docker và xây dựng ứng dụng chia sẻ ảnh, với các ảnh được phân vào các group

- Tìm hiểu kiến thức docker, container, docker image , docker compose và ứng dụng của chúng
- Chạy ứng dụng dùng docker

Tham khảo :

- <https://vicloud.vn/community/cai-dat-va-lam-quen-voi-viec-su-dung-docker-552.html>
- <https://viblo.asia/p/cac-khai-niem-trong-docker-va-thuc-hanh-xay-dung-1-ung-dung-bang-docker-co-ban-XL6lANEm5ek>
- <http://bloghoctap.com/technology/trien-khai-moi-truong-web-bang-docker.html>
- https://paper.dropbox.com/doc/Docker-basics--Aa~CmDe6~~LMfpoKvieLVl4~AQ-px5u9Q7pU59CktXokKODc?fbclid=IwAR0H_ISNr-nXsaQkjwdpcJoGftcuOO2AlYiOS1BpTuKvEkaFkOmXB5MvYy4
- <https://vimentor.com/vi/lesson/docker-container-va-cac-ung-dung-trong-kien-truc-microservice>
- <https://vimentor.com/vi/lesson/4-docker-container-va-cac-ung-dung-trong-kien-truc-microservice-phan-2>

Nghiên cứu Docker và xây dựng ứng dụng chia sẻ ảnh, với các ảnh được phân vào các group

- Step 1: Tạo một trang web chia sẻ ảnh (dùng Wordpress). Tham khảo các trang web chia sẻ ảnh phổ biến (giao diện, bố cục,...) ie. Flickr, photo google, photobucket, dropbox
 - Tìm hiểu Wordpress+LAMP và cách tạo web
 - <https://www.slideshare.net/ThuyetNguyen11/bo-co-mn-m-ngun-m>
 - <https://nguyenhuuhoang.com/huong-dan-cai-dat-wordpress-tren-lamp-server-ubuntu-16-04/>
 - <http://websitechuyenngiep.vn/huong-dan-cach-tao-website-bang-wordpress.html>
 - <http://dreamlib.vn/index.php?threads/h%C6%B0%E1%BB%9Bng-d%E1%BA%ABn-c%C3%A0i-%C4%91%E1%BA%B7t-wordpress-tr%C3%AA-n-ubuntu-qua-terminal-th%C3%ADch-h%E1%BB%A3p-cho-ubuntu-server.1026/>
 - <https://www.hostinger.vn/huong-dan/lam-the-nao-de-cai-dat-wordpress/>
- Step 2: Chạy ứng dụng dùng docker container

Việt hóa ứng dụng xem phim, nghe nhạc

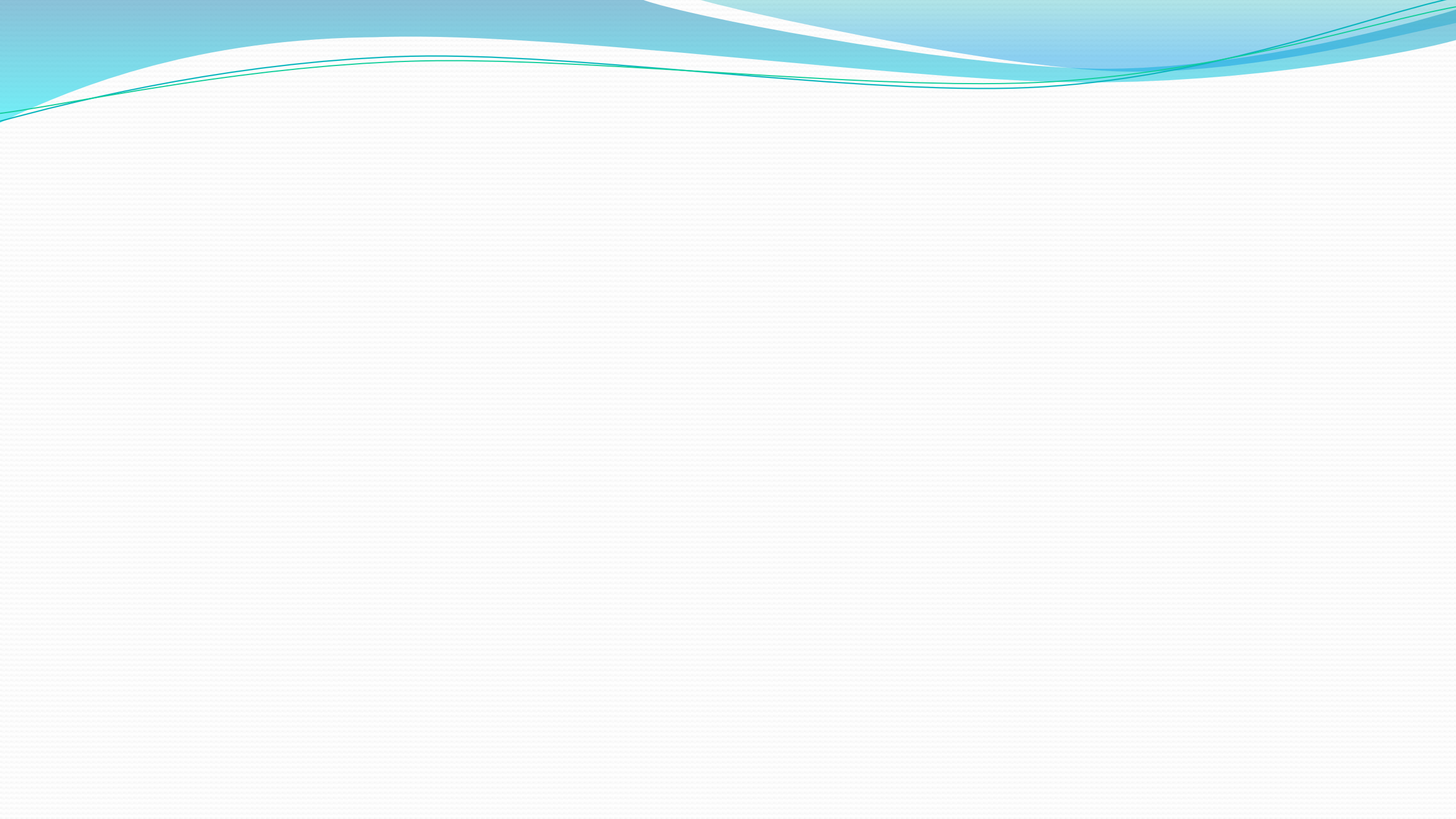
- Tải source VLC
- Compile and Build
- Việt hóa
- <https://wiki.videolan.org/Category:Building/>
- <https://wiki.videolan.org/UnixCompile/>

Tạo trình duyệt riêng Việt ngữ (từ mã nguồn Chrome)

- Tìm hiểu Chromium
- Tải về chromium và compile/build
 - * Sau đó việt hóa và compile
- <https://www.chromium.org/developers/how-tos/get-the-code>
- https://chromium.googlesource.com/chromium/src/+/_master/docs/linux_build_instructions.md
- <https://quantrimang.com/chromium-va-chrome-khac-nhau-nhu-the-nao-124243>
- <https://www.hiroom2.com/2017/08/11/ubuntu-1604-chromium-en/>

Xây dựng Ide giống Eclipse (việt hóa)

- Tìm hiểu IDE
- Tải Eclipse IDE
- Compile và Run
 - Sau đó việt hóa và compile
 - <https://archive.eclipse.org/eclipse/downloads/drops/R-3.2.2-200702121330/srcIncludedBuildInstructions.html>
 - <https://archive.eclipse.org/eclipse/downloads/drops/R-3.3-200706251500/srcIncludedBuildInstructions.html>
 - https://wiki.eclipse.org/Linux_Tools_Project/Eclipse_Build
- <https://www.slideshare.net/LarsVogel/eclipse-committerin20minutes>
- <https://www.vogella.com/tutorials/EclipsePlatformDevelopment/article.html>
- <https://wiki.eclipse.org/Babel>
- https://download.eclipse.org/technology/babel/babel_language_packs/R0.16.0/oxygen/oxygen.php



Build Chromium

- https://chromium.googlesource.com/chromium/src/+/master/docs/linux_build_instructions.md
- Yêu cầu cài python 2. Set PATH
- Clone depot_tools về thư mục home (~)
git clone https://chromium.googlesource.com/chromium/tools/depot_tools.git
 - Mở file ~/.bashrc và paste vào cuối file
export PATH="\$PATH:\${HOME}/depot_tools"

Build Chromium

- Tải source chromium

`mkdir ~/chromium && cd ~/chromium`

`fetch --nohooks chromium`

- Nếu bị lỗi checkout thì dùng

`git config --global`

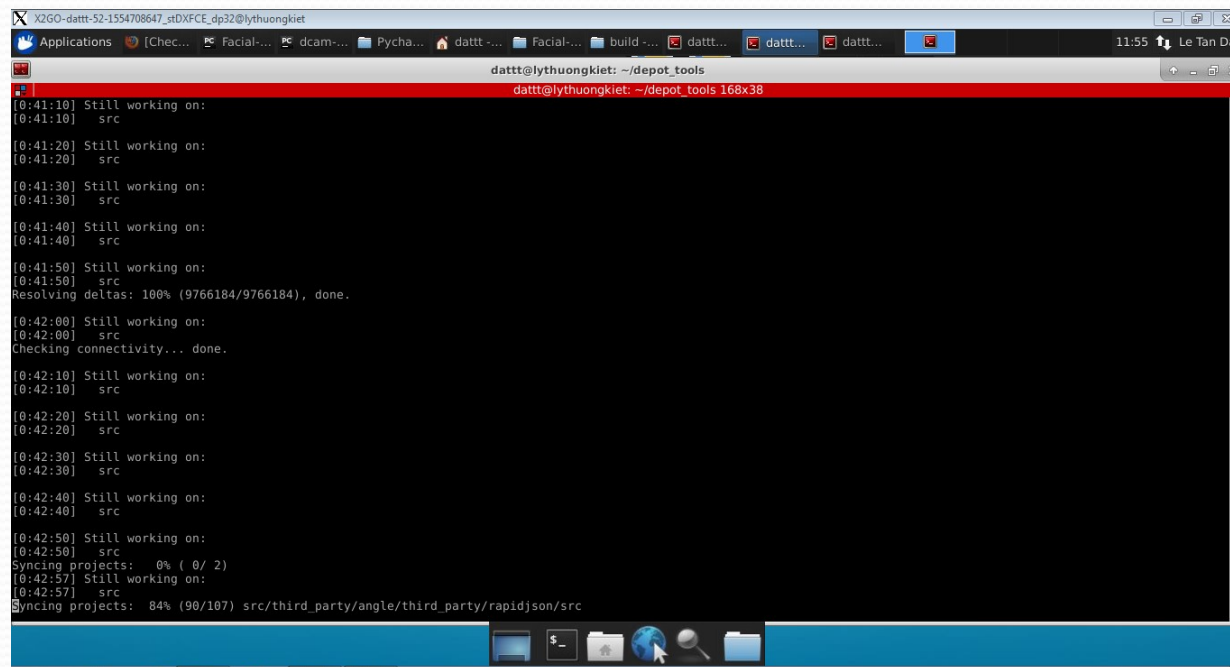
`~/depot_tools/update_depot_tools`

`gclient sync` hoặc `python2 gclient.py sync`

Update your checkout

To update an existing checkout, you can run

```
$ git rebase-update
$ gclient sync
```



```
X2GO-dattt-52-1554708647_StdXFCF_dp32@lythuongkiet
Applications [Chec... Facial-... dcam-... Pycha... dattt-... Facial-... build-... dattt... dattt... dattt... 11:55 Le Tan Dat

dattt@lythuongkiet: ~/depot_tools
dattt@lythuongkiet: ~/depot_tools 168x38

[0:41:10] Still working on:
[0:41:10] src
[0:41:20] Still working on:
[0:41:20] src
[0:41:30] Still working on:
[0:41:30] src
[0:41:40] Still working on:
[0:41:40] src
[0:41:50] Still working on:
[0:41:50] src
Resolving deltas: 100% (9766184/9766184), done.
[0:42:00] Still working on:
[0:42:00] src
Checking connectivity... done.
[0:42:10] Still working on:
[0:42:10] src
[0:42:20] Still working on:
[0:42:20] src
[0:42:30] Still working on:
[0:42:30] src
[0:42:40] Still working on:
[0:42:40] src
[0:42:50] Still working on:
[0:42:50] src
Syncing projects: 0% ( 0 / 2)
[0:42:57] Still working on:
[0:42:57] src
Syncing projects: 84% (90/107) src/third_party/angle/third_party/rapidjson/src
```

Build Chromium

cd src

./build/install-build-deps.sh

gclient runhooks hoặc python2 gclient.py runhooks

- Nếu bị lỗi

```
assert os.path.exists(tarball)
AssertionError
Error: Command '/usr/bin/python src/third_party/binutils/download.py' returned non-zero exit status 1 in /home/dattt/depot_tools
dattt@lythuongkiet:~/depot_tools$ $PATH
bash: /home/dattt/depot_tools:/home/dattt/depot_tools:/home/dattt/depot_tools:/home/dattt/depot_tools:/home/dattt/bin:/home/dattt/.local/bin:/home/dattt/bin:/home/dattt/.local/bin:$JAVA_HOME/bin:/opt/anaconda3/bin:/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games:/usr/local/cuda/bin:/snap/bin:/home/dattt/depot_tools:/home/dattt/depot_tools:/home/dattt/depot_tools:/usr/bin/python:/usr/bin/python: No such file or directory
dattt@lythuongkiet:~/depot_tools$
```

download_from_google_storage --no_resume --no_auth --bucket chromium-binutils -s
/opt/chromium/src/third_party/binutils/Linux_x64/binutils.tar.bz2.sha1

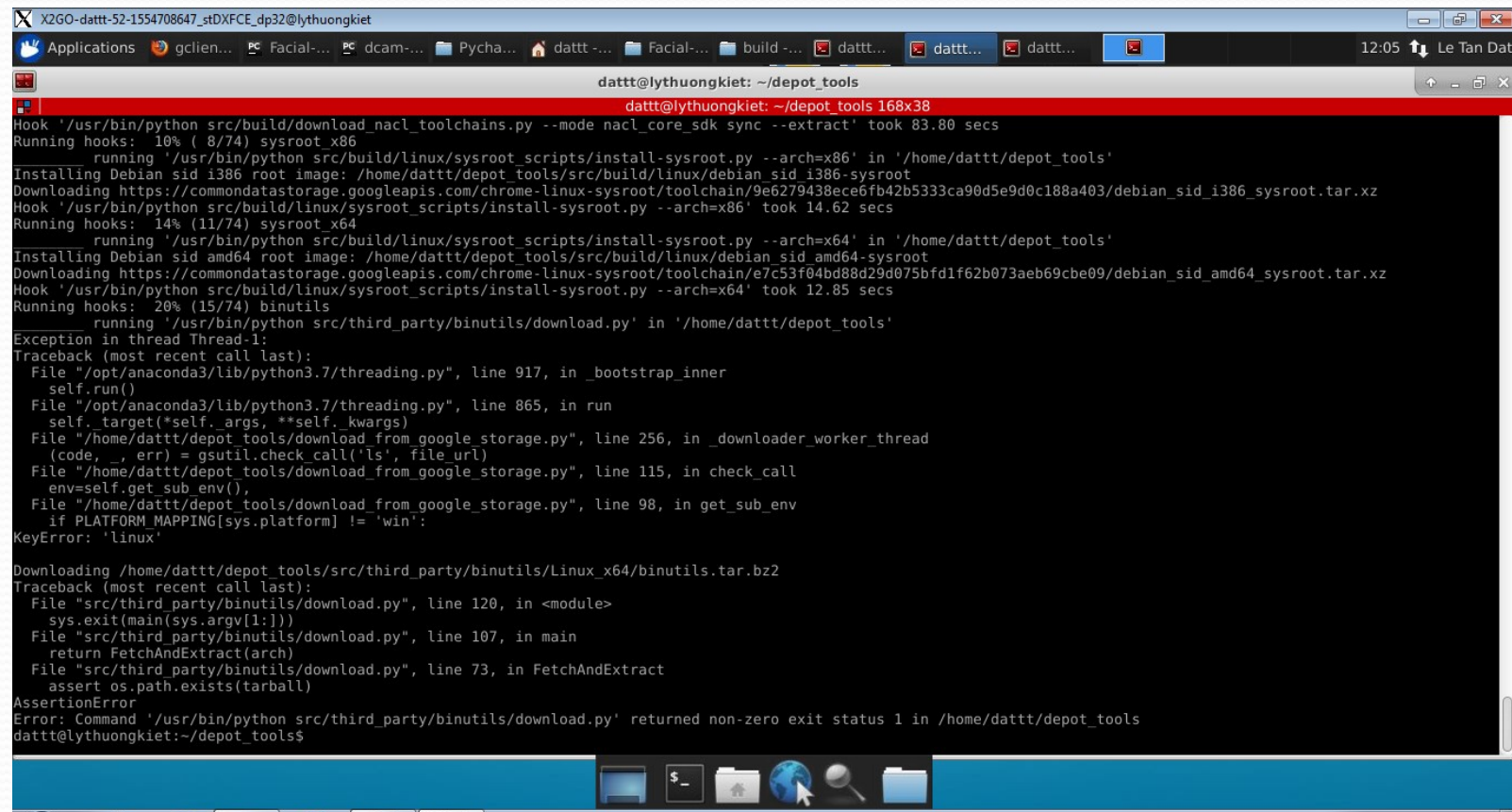
Hoặc

python2 download_from_google_storage.py --no_resume --no_auth --bucket chromium-binutils -s
/opt/chromium/src/third_party/binutils/Linux_x64/binutils.tar.bz2.sha1

- * thay đổi đường dẫn

- Lỗi download.py tại binutils

- Không đủ bộ nhớ

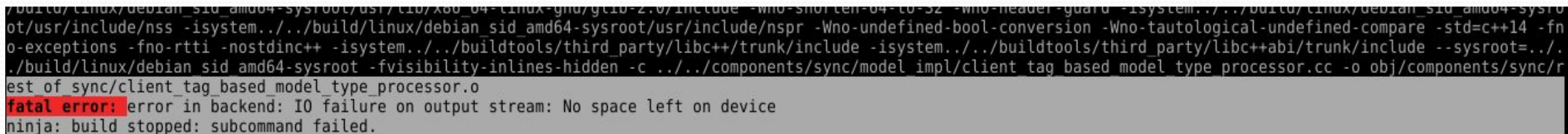


The screenshot shows a terminal window titled 'dattt@lythuongkiet: ~/depot_tools'. The terminal output shows the execution of a script to install sysroot for x86 and x64 architectures. It successfully downloads and installs the sysroot for x86 but fails when attempting to download and install the sysroot for x64. The error message is 'Exception in thread Thread-1: KeyboardInterrupt' followed by a traceback. The final error message is 'Error: Command '/usr/bin/python src/third_party/binutils/download.py' returned non-zero exit status 1 in /home/dattt/depot_tools'.

```
X2GO-dattt-52-1554708647_stDXFCE_dp32@lythuongkiet
Applications gclien... Facial... dcam... Pycha... dattt... Facial... build... dattt... dattt... dattt... 12:05 Le Tan Dat

dattt@lythuongkiet: ~/depot_tools
dattt@lythuongkiet: ~/depot_tools 168x38
Hook '/usr/bin/python src/build/download_nacl_toolchains.py --mode nacl_core_sdk sync --extract' took 83.80 secs
Running hooks: 10% ( 8/74) sysroot_x86
  running '/usr/bin/python src/build/linux/sysroot_scripts/install-sysroot.py --arch=x86' in '/home/dattt/depot_tools'
Installing Debian sid i386 root image: /home/dattt/depot_tools/src/build/linux/debian sid i386-sysroot
Downloading https://commondatastorage.googleapis.com/chrome-linux-sysroot/toolchain/9e6279438ece6fb42b5333ca90d5e9d0c188a403/debian_sid_i386_sysroot.tar.xz
Hook '/usr/bin/python src/build/linux/sysroot_scripts/install-sysroot.py --arch=x86' took 14.62 secs
Running hooks: 14% (11/74) sysroot_x64
  running '/usr/bin/python src/build/linux/sysroot_scripts/install-sysroot.py --arch=x64' in '/home/dattt/depot_tools'
Installing Debian sid amd64 root image: /home/dattt/depot_tools/src/build/linux/debian sid amd64-sysroot
Downloading https://commondatastorage.googleapis.com/chrome-linux-sysroot/toolchain/e7c53f04bd88d29d075bfd1f62b073aeb69cbe09/debian_sid_amd64_sysroot.tar.xz
Hook '/usr/bin/python src/build/linux/sysroot_scripts/install-sysroot.py --arch=x64' took 12.85 secs
Running hooks: 20% (15/74) binutils
  running '/usr/bin/python src/third_party/binutils/download.py' in '/home/dattt/depot_tools'
Exception in thread Thread-1:
Traceback (most recent call last):
  File "/opt/anaconda3/lib/python3.7/threading.py", line 917, in _bootstrap_inner
    self.run()
  File "/opt/anaconda3/lib/python3.7/threading.py", line 865, in run
    self.target(*self.args, **self.kwargs)
  File "/home/dattt/depot_tools/download_from_google_storage.py", line 256, in _downloader_worker_thread
    (code, _, err) = gsutil.check_call('ls', file_url)
  File "/home/dattt/depot_tools/download_from_google_storage.py", line 115, in check_call
    env=self.get_sub_env(),
  File "/home/dattt/depot_tools/download_from_google_storage.py", line 98, in get_sub_env
    if PLATFORM_MAPPING[sys.platform] != 'win':
KeyError: 'linux'

Downloading /home/dattt/depot_tools/src/third_party/binutils/Linux_x64/binutils.tar.bz2
Traceback (most recent call last):
  File "src/third_party/binutils/download.py", line 120, in <module>
    sys.exit(main(sys.argv[1:]))
  File "src/third_party/binutils/download.py", line 107, in main
    return FetchAndExtract(arch)
  File "src/third_party/binutils/download.py", line 73, in FetchAndExtract
    assert os.path.exists(tarball)
AssertionError
Error: Command '/usr/bin/python src/third_party/binutils/download.py' returned non-zero exit status 1 in /home/dattt/depot_tools
dattt@lythuongkiet:~/depot_tools$
```



The screenshot shows a terminal window with a long command line for building a project. The command includes various flags for compiler options and output directories. The output shows a 'fatal error: error in backend: IO failure on output stream: No space left on device' followed by 'ninja: build stopped: subcommand failed.'

```
../build/linux/debian sid amd64-sysroot/usr/lib/x86_64-linux-gnu/glibc-2.0/include -Wno-shorten-64-to-32 -Wno-header-guard -isystem../build/linux/debian sid amd64-sysroot/usr/include/nss -isystem../build/linux/debian sid amd64-sysroot/usr/include/nspr -Wno-undefined-bool-conversion -Wno-tautological-undefined-compare -std=c++14 -fno-exceptions -fno-rtti -nostdinc++ -isystem../buildtools/third_party/libc++/trunk/include -isystem../buildtools/third_party/libc++abi/trunk/include --sysroot=../build/linux/debian sid amd64-sysroot -fvisibility-inlines-hidden -c ../components/sync/model_impl/client_tag_based_model_type_processor.cc -o obj/components/sync/r
est of sync/client_tag_based_model_type_processor.o
fatal error: error in backend: IO failure on output stream: No space left on device
ninja: build stopped: subcommand failed.
```

Build chromium

gn gen out/Default

- Build

autoninja -C out/Default chrome

```
ninja: build stopped: subcommand failed.  
dattt@lythuongkiet:~/depot_tools/src$ autoninja -C out/Default chrome  
/home/dattt/depot_tools/ninja -C out/Default chrome  
ninja: Entering directory `out/Default'  
[10519/20840] CXX obj/extensions/browser/api/storage/storage/weak_unlimited_settings_storage.o
```

- Run: cd out/Default

./chrome