

C Coding Assignment

Your assignment is to write a C program on linux which will parse a video on demand m3u8 master playlist link and download the media data of a variant playlist to a file. You have to choose the first variant playlist with highest resolution in master playlist. You have to concatenate all media segments in variant playlist and output a single file. You can read the following links for m3u8 format.

<https://tools.ietf.org/html/draft-pantos-http-live-streaming-23>
<https://developer.apple.com/streaming/>

You can use the following sample master playlist link

https://devstreaming-cdn.apple.com/videos/streaming/examples/img_bipbop_adv_example_ts/master.m3u8

In this master playlist, the first highest resolution variant link is

https://devstreaming-cdn.apple.com/videos/streaming/examples/img_bipbop_adv_example_ts/v9/prog_index.m3u8

Requirements

Please read these requirements carefully. Your assignment will not be accepted otherwise

1. Program must be written in C language on a linux platform. Please use a plain makefile and use GNU make.
2. Program will be named as "m3u8_downloader.exe" and usage will be as below.

Usage: m3u8_downloader.exe M3U8_URL OUTPUT_FILE

e.g: ./m3u8_downloader.exe

https://devstreaming-cdn.apple.com/videos/streaming/examples/img_bipbop_adv_example_ts/master.m3u8 output.ts

3. Program must use libcurl C library for http/https calls.
4. All segments in variant playlist must be downloaded to a single output file.
5. Output file must be playable with a video player.
6. Handle all the errors and show the errors on the screen. In case of error, exit the program with a non-zero error code.

7. The only exit point of the program should be at the end of `main()`.

Deliverables

Please deliver the following items via email:

1. A tar file contains the source code and makefile of your program.
2. Any comment on the results in a flat text file named `"comments.txt"`.

Deadline

Deliver by the deadline as communicated to you by your recruiter. Deadline is extremely important.