SNA LAB 4 Build a Package

My pick is a Debian/Ubuntu package

Task 1.

Study that packaging system and answer the following questions:
• how does it work?

Ubuntu builds on the **Debian** architecture and infrastructure. Debian has a packaging system where every component and application is built into a package. Debian uses a set of tools called Advanced Packaging Tool (APT) to manage this packaging system.
The /etc/apt/sources.list file contains a list of locations from which to retrieve desired package files. Any number of additional repositories can be added to APT's *sources.list* configuration file (/etc/apt/sources.list) and then be queried by APT.
There are various tools that interact with APT and allow you to install, remove and manage packages.
The **apt** command is a powerful command-line tool, which works with Ubuntu's Advanced Packaging Tool (**APT**).
apt automatically gets and installs packages upon which the indicated package depends

• how does it deal with dependencies?

APT has a dependency declaration mechanism in the control file fields to deal with dependencies.

• does it use the GNU build tools? How?

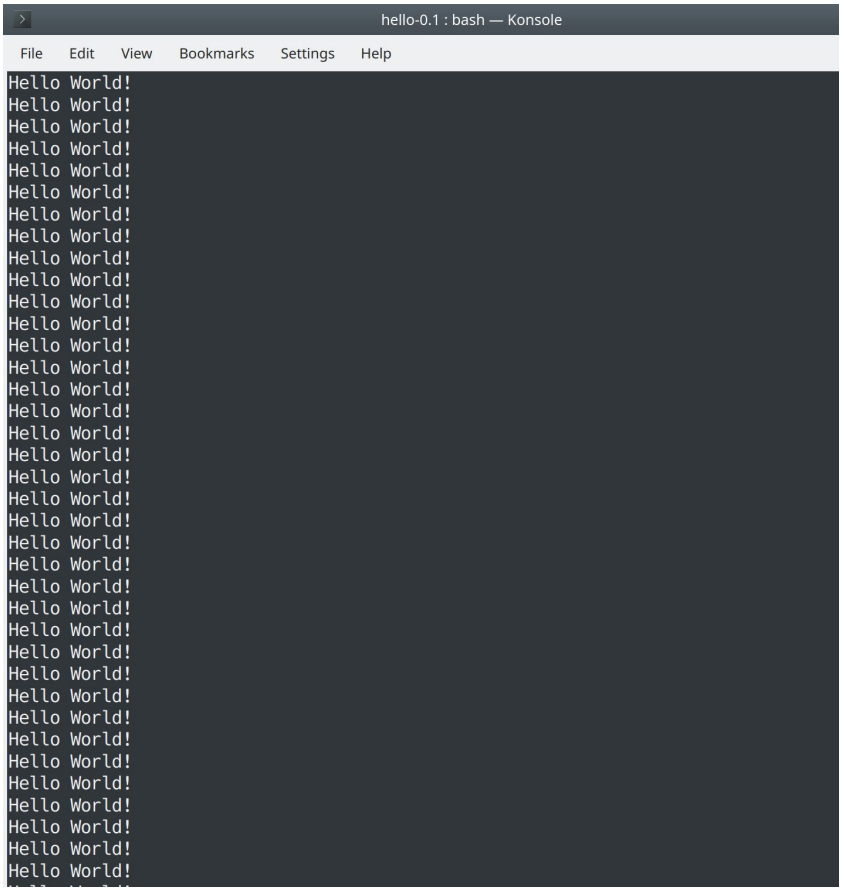
apt-build package depends on GNU C Library package, so I suppose that it uses it (at least apt-build package, maybe we can create a package without GNU C library)

Task 2.

I could not manage to find a program that does not exist in any repository of, so I decided to create a package on my own:
https://github.com/BananaAndBread/SNA/tree/master/Lab4
Commands to build:

```
tar -xvf hello-0.1.tar.gz hello-0.1/
cd hello-0.1
./configure
make
```

sudo make install
Works like this:



Task 3.

1)Download “Toolchains targeting Win64”(mingw-w64-bin_x86_64-linux_20131228.tar.bz2)
2)Unpack the archive to /opt/mingw64 using tar (something like sudo tar -xvf mingw-w64-bin_x86_64-linux_20131228.tar.bz2 -C /opt/mingw64/)
3)Write program (this program was also used to create a package):

```
#include <stdio.h>

int main()

{
while(1){
printf("Hello World!\n");
}
}
```

4)Run command

/opt/mingw64/bin/x86_64-w64-mingw32-gcc ~/temp/hello.c -o ~/temp/hello-w64.exe

5)Test using Windows