

###操作系统用户接口实验

2021100733 人工智能 陈旭天

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实验目的及其设计思路

实验目的：熟悉Linux操作系统的命令接口、图形接口和程序接口。提高学生的动手能力。

设计思路：

1. 设计一个简单的程序；
2. 对该程序进行编译，并运行

涉及的内容及设计思路

本实验涉及到Linux操作系统下的C编程，及相关系统命令。

常见的Linux命令行：cd：转到xxx ls：展示当前文件夹下的目录

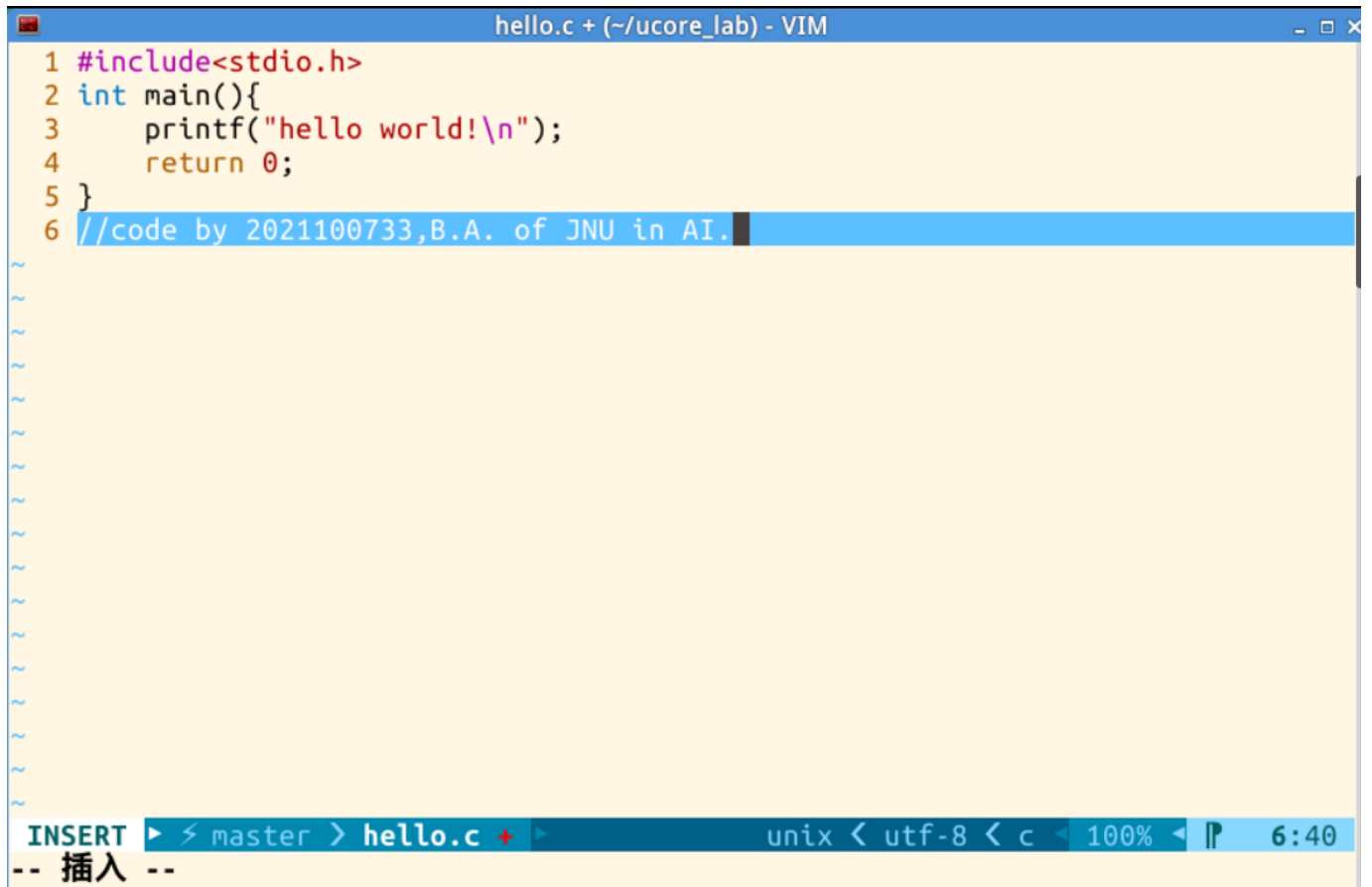
vim编辑器：i：插入模式 r：只读模式：wq 保存并退出

gcc命令行：gcc xxx 编译C源文件 ./a.out 运行编译好的可执行文件

采用的方法和手段

在ucore在线练习平台提供的Linux环境中练习

```
shiyanolou@63f82a0c55d382fc5bb8efd8: ~/ucore_lab
shiyanolou:~/ $ ls [3:17:37]
BG Desktop Documents Music others Public ucore_docs Videos
Code dev Downloads os_exercises Pictures Templates ucore_lab
shiyanolou:~/ $ cd ucore_lab [3:17:44]
shiyanolou:ucore_lab/ (master*) $ ls [3:17:53]
labcodes labcodes_answer LICENSE README-english.md README.md related_info
shiyanolou:ucore_lab/ (master*) $ vim hello.c [3:17:56]
shiyanolou:ucore_lab/ (master*) $ ls [3:20:06]
hello.c labcodes_answer README-english.md related_info
labcodes LICENSE README.md
shiyanolou:ucore_lab/ (master*) $ gcc hello.c [3:20:09]
shiyanolou:ucore_lab/ (master*) $ ls [3:20:19]
a.out labcodes LICENSE README.md
hello.c labcodes_answer README-english.md related_info
shiyanolou:ucore_lab/ (master*) $ a.out [3:20:21]
zsh: command not found: a.out
shiyanolou:ucore_lab/ (master*) $ ./a.out [3:20:26]
hello world!
shiyanolou:ucore_lab/ (master*) $ vim [3:21:35]
```



The image shows a VIM editor window titled "hello.c + (~/.ucore_lab) - VIM". The editor contains the following C code:

```
1 #include<stdio.h>
2 int main(){
3     printf("hello world!\n");
4     return 0;
5 }
6 //code by 2021100733,B.A. of JNU in AI.
```

The code is displayed on a yellow background. The first five lines are numbered 1 through 5. The sixth line is highlighted in blue. To the left of the code, there are several tilde (~) characters. The status bar at the bottom of the window shows "INSERT" in red, followed by a right arrow, then "< master > hello.c +", then "unix < utf-8 < c", then "100%", then a right arrow, then "P", and finally "6:40". Below the status bar, the text "-- 插入 --" is displayed.