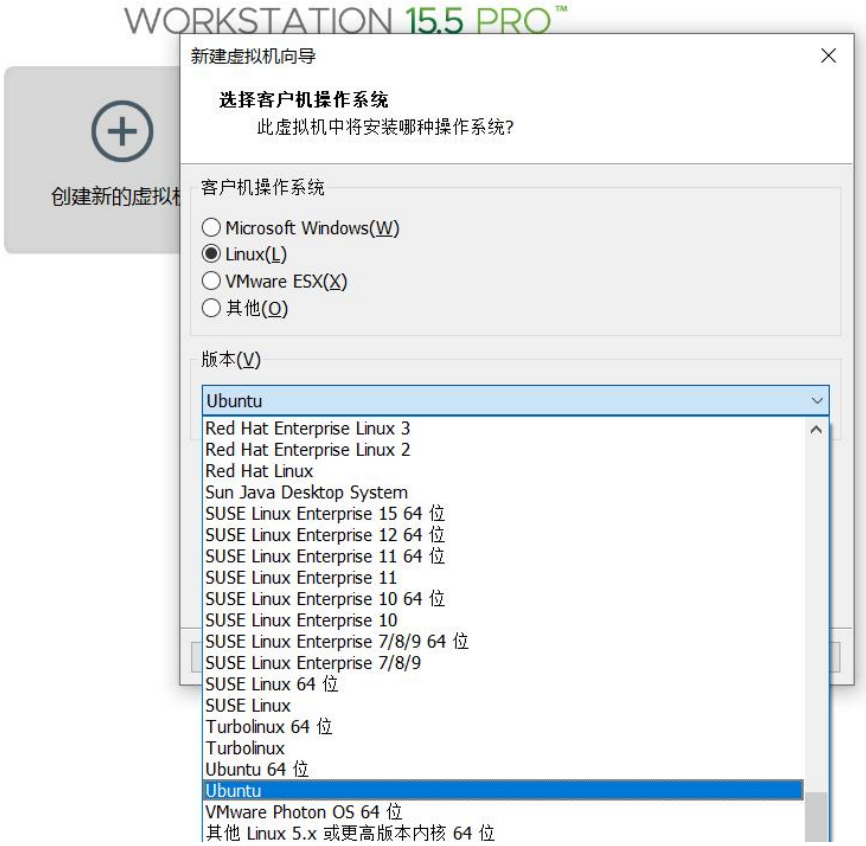
环境（VMWare+Ubuntu）

1.下载并安装 VMWare 虚拟机环境

VMWare 可从以下百度网盘链接中获取，也可以自己到官网下载，注意版本一致即可（链接中的版本：VMware-workstation-full-15.5.7-17171714）
链接：https://pan.baidu.com/s/1KTZxpr2kBm5zeb3HEtG_hw
提取码：idxi

2.创建虚拟机

Ubuntu 镜像可从以下百度网盘链接中获取，也可以自己到官网下载，注意版本一致即可（链接中的版本：ubuntu-16.04.4-desktop-i386.iso）
链接：https://pan.baidu.com/s/1Ox7i1TnoT3lvRigH7ZJWfg
提取码：kwfm
注意：创建虚拟机的过程选择 ubuntu32 位系统（如下图所示，即 Ubuntu）



说明：【系统环境配置】和【获取源码】部分在【NK 实验 PA 流程.pdf】文档中 PA0 部分已有详细说明，以下为大家需要重点关注和完成的部分（温馨提示：完成 PA0-PA5 的过程中，**仔细**阅读手册可以避免很多麻烦和不必要的时间浪费）

系统环境配置

在创建好的虚拟机中，按照【NK 实验 PA 流程.pdf】文档中 PA0 部分（Page8-10）配置系统环境，安装实验工具
注意：务必完成以下工具的安装

Installing tools for PAs

The following tools are necessary for PAs:

```
apt-get install build-essential    # build-essential packages, include binary utilitie
s, gcc, make, and so on
apt-get install gdb                # GNU debugger
apt-get install git                # reversion control system
apt-get install libreadline-dev    # a library to use compile the project later
apt-get install libsdl2-dev        # a library to use compile the project later
apt-get install qemu-system-x86    # QEMU
```

The usage of these tools is explained later.

命令给大家打在下面了，可复制粘贴：
sudo apt-get install build-essential
sudo apt-get install gdb
sudo apt-get install git
sudo apt-get install libreadline-dev
sudo apt-get install libsdl2-dev
sudo apt-get install qemu-system-x86

获取源码

按照【NK 实验 PA 流程.pdf】文档 page13 的指导获取实验源码，并继续完成 PA0 所有内容

封，使用 sudo.

Now acquire source code for PA by the following command:

```
git clone -b 2017 https://github.com/NJU-ProjectN/ics-pa.git ics2017
```

A directory called ics2017 will be created. This is the project directory for PAs. Details will be explained in PA1.

Issue the following commands to perform git configuration:

```
git config --global user.name "161220000-Zhang San" # your student ID and name
git config --global user.email "zhangsan@foo.com"   # your email
git config --global core.editor vim                 # your favorite editor
git config --global color.ui true
```

You should configure git with your student ID, name, and email. Before continuing, please read this git tutorial to learn some basics of git.

Enter the project directory ics2017, then run

```
git branch -m master
bash init.sh
```

to initialize all the subprojects. This script will pull 4 subprojects from github. We will explain them later. Besides, the script will also add some environment variables into the bash configuration file ~/.bashrc. These variables are defined by absolute path to support the compilation of the subprojects.