## Computer Science Department – College of Engineering – UASLP Operating Systems – **NachOS Practices**

## **NachOS** modules

- Find out how many directories are in the NachOS simulator. Write down its names.
- Each directory contains a module of the NachOS simulator. Do a little research on the Internet and find out what modules are implemented on the version you are using.

## C/C++

- What is an enumeration in C/C++ programming language?
- How does enum work?

## Threads module

- Threads directory contains the scheduler implementation of NachOS. Take a look on the code of this directory (specifically, files threadtest.cc, thread.h, thread.cc, scheduler.h, scheduler.cc, list.h and list.cc) and answer the following questions.
- What are the valid states for a process in NachOS?
- What is the data structure used to define those valid states in NachOS? Write down the name of the file where this structure is and copy and paste the code where this structure is implemented.
- What file defines the structure of the PCB? Write down the name of the file where this structure is implemented.
- What information is defined in the PCB for each process? Write down those fields.
- How many scheduler queues are defined in NachOS? Write down the name of the file where you
  found the answer to this question.

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- How many schedulers are implemented in NachOS? Justify your answer.
- How do you declare a thread in NachOS?
- How do you create and execute a thread in NachOS?
- Explain the code in the file threadtest.cc