Hello ~~students~~ everyone, Jasper here. Many of you asked me what is system simulation. and How could system simulation benefit us.

Well, today, I will spend to lead you into this world.

First, Let's forget about all of the terminologies and focus on 1 question:

Have you ever been pissed off with a long, ~~very long, exteremely long~~ waiting line for a certain service?

I have a friend a few years ago whose name is John.

He just graduated from a university and passed the paper test for a drivers' license.

One ~~day~~ sunny day, he went to ICBC for a road test registration.

He had smiles on his face because he just got paid ~~by~~ from his co-op ~~boss~~ job, ~~and he will with his love, Many, ofter this registration.~~ so he could lease the newest Honda CIVIC ~~data~~ date his favourite car.

However, that smile only stayed before ~~the~~ he entered the ICBC nightmare door. There ~~is~~ was a long, very long, exteremely long line to the reception desk. He noticed that there was only ~~1~~ clerk working for the line, and the clerk ~~is~~ was even chatting with ~~colleges~~ her colleagues.

John waited, waited, and waited for ~~an entire~~ an entire ~~one~~ hour ~~and half~~ to finally reach the front of that Clerk.

While he was talking to the clerk, he find another long, very long, exteremely long line behind that clerk.

"What is that line for?" John asked

"That line is for license photos" the Clerk answered

John got mad, really really mad, like he swared to the god ~~that~~ he will never set foot ~~After about 2 hours~~, into this devil ICBC door once again.

He speed another 1.5 hours ~~for a license~~ for the photo and the entire process took him more than 2hs.

A few days later. The manager of that ICBC Branch, David, received a call from the headquarter.

" ~~Get this~~ pr We got a complaines call from a very angry customer"
" OK, sir, but ~~we~~ our budget can only improve one sation"
" I don't give a —, get this problem solved or lose your job"
!

~~OK~~ everyone ~~students~~, ~~that's the end of the story~~.

Image you are ~~the manager~~ David. You have the budget can either hire a new clerk or buy a new camera. ~~How can you determine which method the system efficiency~~ mostly
~~What~~ is ~~which~~ will improve
Which method will reduce the service time more than the other?

Some students may say " Hey ~~professor~~ professor, how about we first buy a new camer, to see the change of efficiency for a while, ~~And then~~ refund it. And then hire a new clerk, see which method will ~~improve~~ reduce the servie fine ~~mostly~~ mostly?

Well, I would say you are pretty smart. But if a new camera is all we need, how can you refund your new employee. At least in north america.

~~To solve this question~~ for, welcome, to the system simulation world.

In this course, we will use computers to simulate ~~some~~ many ~~simple~~ systems ~~to~~ for solving ~~this kind of~~ problems