Phrases 3

- A website is producing service errors when loading certain pages.
- so it might make sense to figure out what changed between what it was working correctly and when it started to fail. ??????????????????????????????
- but it's at least a clue that whatever's happening is related to some other service in the overall system ??????????????????????????????????????
- the application to finish with an error saying unable to connect to the database server. ??????????????????
- if an internal server error appears, it is important to determine what and where the error is, correct it, and understand why it occurred to avoid the same type of error in the future.
- So when you report a bug make sure you include as much information as possible
- It could be that we're dealing with proprietary software and the source code isn't available at all ??????????????????????????????
- It is important to have a reproduction case for a problem that we're trying to solve. ??????????????????????????
- If the application used to work fine and recently started crashing. It's useful to look into what changed in between. ??
- we can search for it online to try to figure out its meaning. ????????????????
- checking if the crashes still occur
- some hardware component is at fault ???
- reinstalling the application and running it with the default configuration still leads to random crashes ????????
- As a first step, you tried looking at the logs to see if there's any error that may point to what's happening, but you only find an error saying application terminated and no useful information ??
- A user asks for your help with a problem on their computer. When you ask for details, the user tells you that the internal billing application crashed while they were trying to generate an invoice for a customer
- As usual, ????
- We'll also dive into how to document a problem and its solutions, and how to learn from our mistakes by writing postmortems ??????????????????????????????????????
- we'll learn a bunch of different techniques that we can use to understand the root causes and how to fix them, or at least lessen the damage when fixing is not possible ??????
- There could be a bug in some part of the code, which does an unsupported operation
- The program was starting a bunch of threads but never closing them, so it eventually ran out of memory and crashed.
- So while no data was actually lost, the reoccurring crashes were increasing the average time to process the data ??

- This program parsed logs to generate alerts when it found suspicious events ??????????????????????
- programs that terminate with uncaught exceptions, systems that fail to update to the latest version ??????????????????????
- A program terminates unexpectedly, a device reboots for no apparent reason, the operating system hangs and we lose all our unsaved work ????????????????????????????????????
- Once you're done writing the Python script,
- hopefully you're starting to feel even more confident in your skills and abilities
- so I decided to spend more time tweaking the code to make the migration go faster ??????????????????????
- In this case, you'll definitely want to split your execution across processors
- we should double-check if the copy is really needed
- We see that there's a bunch of ffmpeg processes running, which are basically using all the available CPU ??????? ffmpeg ????????????????????? CPU
- It seems that something is going on with the web server and we need to investigate further ??????????????????????
- there are too many applications configured to start on boot
- address ; deal with ; take care of ??;??; ??
  - The general strategy for addressing slowness is to identify the bottleneck in our device, our script, or our system to run slowly ????????????????????????????????????
  - The operating system also takes care of some caching for us ??????????????????
  - Dealing with Intermittent Issues : Have you ever tried to solve a problem that happened only occasionally? ???????: ??????????????????
- We need to really study each problem to get to the root cause of the slowness
- we'll have to upgrade the underlying hardware ??????????
- If we've closed everything that wasn't needed and the computer is still slow, we need to look into other possible reasons
- But eventually, you'll run out of memory and everything will slow down ??????????????????
- But if you keep opening tabs, at some point your computer will become sluggish ????????????????????????????????????
- ignoring upper vs lower case and punctuation ??????????
- We've also talked about problems that go away on their own and then pop up again ??????????????????????
- So we've looked at a few ways of getting to the root cause of a problem ??????????????????
- If a problem goes away by turning it off and on again, there's almost certainly a bug in the software ????????????????????????????????????
- It can take some time to get the setup ??????????????
- we have to try our code in a newly installed machine ??????
- Whenever possible, we should check our hypothesis in a test environment, instead of the production environment that our users are working with ??
- looking at the documentation of the applications involved
- Searching online for the error messages that we get ??????????????
- how do we go about finding the actual root cause of the problem? ??????????????

- when trying to create a reproduction case, we want to find the actions that reproduce the issue ??????????????????????
- you'll find an error message that will help you understand what's going on ??????????????????????
- There could be a bunch of reasons why this could happen. It could be problems with the network routing, old config files interfering with a new version of the program, a permissions problem ??
- we want to consider the simplest explanations first and avoid jumping into complex or time-consuming solutions unless we really have to ??????????????????????????????????????
- we first check if it's correctly plugged in and that there's electricity coming from the plug before taking it apart or replacing it with a new device ??????????????????????????????????????
- There are some common questions that we can ask a user that simply report something doesn't work
  - What happen when you open the app?
  - What were you trying to do?
  - What steps did you follow?
  - What was the expected result?
  - What was the actual result?
- you check if you can reproduce the issue on your own computer.
- what about the documentation we should note that this version of the software won't start if that directory doesn't exist ??????????????????????????????
- to see if we find anything suspicious. ??????????????
- remediation; remediate ??;??
  - Depending on the problem, this might include an immediate remediation to get the system back to health, and then a medium or long-term remediation to avoid the problem in the future ??
  - Now, we can go ahead and remediate the issue ??????????????
- You'll want to know things like when it happened, what the user was doing when it happened, and how regularly it's happening
- the problem could be a hardware issue, a software issue, or even a configuration issue. So the first thing to do is to get more information
- Before we jump in, I'd love to take a quick moment to share why I'm so excited to be here with you taking part in this program ??????????????????????????????????????
- We'll talk about problems that can affect any operating system
- Throughout this course, we'll look at a bunch of different strategies and approaches for tackling problems like those ??????????????????????????
- Sometimes, you might need to figure out why a program isn't doing what it's supposed to. Maybe it's crashing unexpectedly or getting stuck when it should be processing information ??
- various; many different flavors of ????
  - Need a system administrator to handle various issues that come up on my system. (??????????????????????)
  - In your IT career, you'll come across many different flavors of technical problems ????

- If the service encounters a problem, it logs an error message to the syslog, indicating what was wrong and the username that triggered the action that caused the problem ??
- you'll write some automation scripts that will process the system log and generate a bunch of reports based on the information extracted from log files ??????????????????????????????????????
- Developers of the service are asking for your help with getting some information out of those logs, to better understand how the software is being used and how to improve it ??
- So it's valuable that we spent some time looking into what resources exist to help us solve our problem ????????????????????????????????????
- Remember, we want to avoid reinventing the wheel. No matter how tricky and intricate the challenge appears, chances are that others have solved something similar before ??
- figuring out how we can tackle the problem by the tools provided by the Python standard library or by external modules ?????? Python ??????????????????
- spelling out what needs to be done and identifying what the given inputs and desired outputs are for that program that we need to write. ????????????????????????????????
- Linux is the primary OS that I use in my day-to-day job as a system administrator.
- In our specific case, returning the original value makes sense when we can't rearrange it ????????????????????????????
- By running Unit Tests, developers can identify and fix any bugs that appear ????????????????????????????
- when the results don't match the expectations, the code will raise an error ??????????????????
- Tests can help make good code great. ??????????????
- make sure that it behaves the way that they expected to. ?????????
- You want to make sure that when you run a program, it behaves the way that it should ????????????????????????
- it's harder to really be confident that the code will do what it's supposed to ???????????????
- we'll do a quick rundown of the many concepts around testing ????????????????????
- Log files contain a lot of useful information, particularly when you're trying to debug a tricky problem that's happening on a computer ????????????????????????????????????
- To be able to process the output of commands, we'll set a parameter called capture output
- This can be handy for system commands ???????????
- Software testing is a process of evaluating computer code to determine whether or not it does what you expect it to do ????????????????????(??)?????????????
- if we just want to run a command and only care about whether or not it was successful. ????????????????????????
- which means that our script has no control over it ????????????
- helping us create a custom vision-language model tailored to our specific tasks. ??????????????????????????
- These are parameters that are passed to a program when it started. ???????????????

- Another common way of providing information to our programs is through command line arguments ??????????????????????
- The most commonly used shell on Linux is called bash. Linux ????? shell ?? bash
- You are allowed to refer to your completed lab notes during the quiz ????????????????
- Please note that there is a graded quiz that follows this lab. You must complete the lab before attempting the quiz. The quiz will assess your comprehension of the key concepts and procedures covered in the lab ??
- Wildcard: A character that can match more than one character
- Applicable from November 28 to December 5, 2024, 11:59 PM (UTC +0) ??? 2024/11/28...
- Not applicable to services that have been doubled before. ????????????
- This module includes a bunch of different functions that can help manipulate strings ????????????????????????
- reserved characters ????
- But thankfully, the principles are always the same ??????????????????
- Implementation ??; ??; ??; ??; ??
- a bunch of; a ton of; plenty of ??; ??; ??
  - There are plenty of others you'll be using soon ????????????
  - Data can be provided to a computer in a bunch of different ways ?????????????
  - There's a ton of things that you can do with Python ???? Python ?????
  - there's a broad range of tools that incorporate regular expressions ?????????????
- encounter; come across ; experience ??
  - we'll provide resources you can access if you encounter any issues you cannot resolve on your own. ????????????????????????????????
  - we'll give you the tools to solve real world problems that you might come across in your IT role ?????????????? IT ????????????
  - A user is experiencing strange behavior from their compute
- allowing you to use both Linux and Windows operating systems as if they were installed on your local machine ?????? Linux ? Windows ??????????????????
- Qwiklabs is an online lab tool that creates simulated Windows and Linux OS environments Qwiklabs ?????????????? Windows ? Linux ??????
- you will use Qwiklabs through Coursera to complete hands-on activities that include writing Python scripts, debugging Python scripts ???? Coursera ?? Qwiklabs ???????????? Python ????? Python ??
- A lot of programs are capable of exporting data as CSV files ???????????? CSV ??
- Here is the code all together. ?????????
- We can use the datetime module to make it easier for us humans to read ??????????????????????
- File paths are most often used to save and load information ??????????????????
- You see the potential issues? It's enough to make you growl ??????????????????
- we get some hands-on practice with all this ??????????
- the interpreter raises an error ????????
- absolute path ; relative path ????;????
- Is it worth the time ???????

- Without virtual environments, managing these dependencies could become a nightmare ??????????????????????????
- This term stands for Integrated Development Environment, and usually refers to a code editor ??????????????????????
- when we run the Python 3 command, we get an interactive interpreter. ????? Python 3 ??????????????????
- Interpreted vs. Compiled Languages ???????????
- In my job as a sysadmin, I mainly work with the Linux operating system ?????????????????? Linux ????
- You may have also heard of Unix ?????? Unix
- We refer to these different flavors of Linux as distributions. ?????????? Linux ????
- They are tempted to spend a lot of time trying to solve the problem on their own ??????????????????
- To check that our code is doing everything it's supposed to do ??????????????????
- In this scenario, it makes sense to use a set to store the current users ????????????????????????
- I was happy with it, the user was happy with it. ????????????
- We're gonna dive into object-oriented programming ??????????????
- It's your call ; It's up to you ????
- we add, remove, or change the elements inside that box ??????????????????
- it doesn't matter how long each string is on its own. What matters is how many elements the list has ?????????????????? list ??????
- indicate ; represent ??
  - we use square brackets to indicate where the list starts and ends ?????(?) ??????????????
  - a list of integers representing the size of network packets ??(??)???????????(??)
  - The variable device_id represents a device ID containing alphanumeric characters?????????
- You can think of lists as long boxes ???????????
- make the whole string more readable ??????????
- Heads up, this can get complex fast ????????????
- They focus on applying AI in practical ways ???????????? AI
- there are a bunch of exercises ahead to help you with that ??????????????????
- We can use strings to represent a lot of different things. ??????????????????
- It never let me down ???????

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