

## ✓ Congratulations! You passed!

Grade received **100%** To pass 80% or higher

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1. At a manufacturing plant, an employee spends several minutes each hour noting uptime and downtime for each of the machines they are running. Which of the following ideas would best automate this process?

1 / 1 point

- ☐ Provide a tablet computer to the employee to record uptime and downtime
- ☐ Hire an extra employee to track uptime and downtime for each machine
- ☐ Add an analog IoT module to each machine, in order to detect their power states, and attach lights that change color according to the power state of the machine
- ☒ Add an analog Internet of Things (IoT) module to each machine, in order to detect their power states, and write a script that records uptime and downtime, reporting hourly

✓ **Correct**

Way to go! This is a practical application of using Python (and some extra hardware, in this case) to automate a task, freeing up a human's time. The solutions can be complex if the return in saved human time warrants it.

2. One important aspect of automation is forensic value. Which of the following statements describes this term correctly?

1 / 1 point

- ☐ It's important to remember that 20% of our tasks as system administrators is responsible for 80% of our total workload.
- ☐ It's important to have staff trained on how automation processes work so they can be maintained and fixed when they fail.
- ☐ It's important to organize logs in a way that makes debugging easier.
- ☒ It is important for automated processes to leave extensive logs so when errors occur, they can be properly investigated.

✓ **Correct**

Right on! Forensic value, in relation to automation, is the value we get while debugging from properly logging every action our automation scripts take.

3. An employee at a technical support company is required to collate reports into a single file and send that file via email three times a day, five days a week for one month, on top of their other duties. Assume that one month is four weeks, and it will take him 10 hours to code the automation script. Using the formula  $[\text{time\_to\_automate} < (\text{time\_to\_perform} * \text{amount\_of\_times\_done})]$ , how long would it take them in minutes before they save time on the process?

1 / 1 point

- ☐ 1 minute
- ☒ 100 minutes
- ☐ 50 minutes
- ☐ 40 minutes

✓ **Correct**

Awesome! It would take the employee 100 minutes before they save time on the process.

4. A company is looking at automating one of their internal processes and wants to determine if automating a process would save labor time this year. The company uses the formula  $[\text{time\_to\_automate} < (\text{time\_to\_perform} * \text{amount\_of\_times\_done})]$  to decide whether automation is worthwhile. The process normally takes about 10 minutes every week. The automation process itself will take 40 hours total to complete. Using the formula, how many weeks will it be before the company starts saving time on the process?

1 / 1 point

- ☐ 24 weeks
- ☐ 2 weeks
- ☒ 240 weeks
- ☐ 6 weeks

✓ **Correct**

Right on! It's safe to say that the company won't find it worth it's time to automate.

5. Which of the following are valid methods to prevent silent automation errors? (Check all that apply)

1 / 1 point

☒ Internal issue tracker entries

✓ **Correct**

Nice work! Internal issue tracker entries are created as part of reporting on errors in our automation script in this lesson.

☒ Regular consistency checks

✓ **Correct**

Awesome! Automated consistency checks, such as hash checks on backups, can help identify problems ahead of time.

☐ Constant human oversight

☒ Email notifications about errors

✓ **Correct**

Excellent! Email notifications for errors or task completions can help keep track of automated processes.