T-LEVELS | Institute for Apprenticeships & Technical Education

T Level Technical Qualification in Digital, Digital Production, Design and Development (Level 3)

Thursday 10 November 2022

Time 3 hours

Paper reference **19538**

Core: Employer Set Project

Task 2: Identifying and fixing defects in an existing code

You must have:
Task2_Test_Log_Template.doc, Task2_NonWorkingCode.txt.

Information

- This booklet contains material for the completion of the set task under supervised conditions.
- This booklet is specific to each series and this material must only be issued to students who have been entered to undertake the task in the relevant series.
- This booklet must be kept securely until the start of the timetabled assessment.

Continue ▶

W76363A

W 7 6 3 6 3 A

Pearson

BLANK PAGE

Continue ▶

Instructions for students

You must complete **ALL** parts of the activity within the assessment.

The task must be undertaken at the time and date specified by Pearson.

You will be given three hours for producing the outcomes for this task.

Your centre will advise you of when supervised breaks have been scheduled.

The task must be completed under supervised conditions.

You are **not** permitted access to the internet during this task.

You are permitted to use **offline** versions of relevant software to produce evidence for this task.

Files provided for use during this activity:

- Task2_Test_Log_Template.doc
- Task2_NonWorkingCode.txt

Your work and any material provided must be kept securely at all times.

Set Task Brief

You are a member of the programming team that is developing a program to meet the requirements in the Set Task Information.

Your manager has asked you to look at some code that a Junior Software Developer has produced but is not yet functional. The code that is not yet functioning is provided for you in the *Task2_NonWorkingCode.txt* file.

The code should meet the requirements in the Set Task Information.

Activity

You will need to use:

- the information provided in the Set Task Information
- the non-functioning code provided in the file *Task2_NonWorkingCode.txt*.

You must:

- produce and apply a test plan to identify the defects that are preventing the program code in the file *Task2_NonWorkingCode.txt* from functioning
- apply a solution to fix the defects in the program code provided
- document the process that you followed to fix the code.

When applying a solution to fix the defects you must:

- ensure the code meets the requirements in the Set Task Information
- use Python 3 programming language
- follow accepted programming conventions
- test your solution to ensure that it functions as expected.

Two files are provided for use during this activity:

- Task2_Test_Log_Template.doc
- Task2_NonWorkingCode.txt

(21)

Outcomes for submission

Save your code as PDF files **and** as .txt files.

Save your testing document as a PDF file.

All files should be saved in your folder for submission.

Use this naming convention:

Task2code_[doc #]_[Registration number]_[surname]_[first letter of first name]

Task2_Test_Log_[Registration number #]_[surname]_[first letter of first name]

Set Task Information

Elanp Air has provided you with this information to develop your program.

Requirements

You need to create a program that will be part of the new system's maintenance management module.

The program must allow the user to enter this information:

- maintenance job information:
    - engineer's name
    - plane serial number
    - date of previous maintenance job
    - time spent on job (in hours)
    - reason for maintenance
    - outcome of job.

The program should then provide the user with a summary of the maintenance job. The summary should show:

- maintenance job information
- date of next service (one year from date of current job).

The program should output the summary to the screen and to a text file.

The information in the text file should be formatted appropriately.

The program should be able to handle user errors.

Safety requirements

- If a maintenance job occurs within 30 days of the previous job the plane must be grounded, and a safety investigation conducted.

Plane serial number

- Must be 12 characters long.