Unit 4 Software development – Introduction

Slide 1:

* Welcome to the Unit 4 Software development presentation as part of the VCE Applied Computing Study Design for 2020–2023.
* The purpose of this presentation is to introduce you to Unit 4 Software development and to provide you with an overview of the outcomes.

Slide 2:

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Slide 3:

* We will now have a look at Unit 4 Software development.

Slide 4:

* In Unit 4 Software development there are the two following outcomes:
* Outcome 1 – Development and evaluation
* Outcome 2 – Software security

Slide 5:

* We will now have a look at Unit 4 Outcome 1 Development and evaluation.

Slide 6:

* This table gives you an overview of the relationship between the:
* Key concepts
* Problem-solving methodology stages
* and the key knowledge within the outcome
* In Unit 4 Outcome 1 Development and evaluation we are dealing with:
* Digital systems
* Data and information
* and Problem-solving with the stages of development and evaluation to produce software solutions.
* The key knowledge is briefly listed on the right of the table.

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* In Unit 4 Outcome 1 Development and evaluation, students should be able to:
* develop and evaluate a software solution that meets requirements
* evaluate the effectiveness of the development model, and
* assess the effectiveness of the project plan.
* Software tools will involve:
* An appropriate programming language and an appropriate tool for documenting project plans.
* The SAT task for Unit 4 Outcome 1 will contribute 15 per cent to the study score. Both Unit 3 Outcome 2 and Unit 4 Outcome 1 contribute 30 per cent to the study score.

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* Students will:
* monitor, modify and annotate project plans
* propose and implement procedures for managing data and files
* develop a software solution
* write internal documentation
* select and apply data validation and testing techniques
* make necessary modifications
* prepare and conduct usability tests
* evaluate the software solution
* evaluate the selected development model, and
* assess the project plan.
* The assessment task is Part 2 of the SAT whereby:
* students will address the development and evaluation stages of the problem-solving methodology, and
* students will address the VCAA SAT Criteria.

Slide 9:

* We will now have a look at Unit 4 Outcome 2 Software security.

Slide 10:

* This table gives you an overview of the relationship between the:
* Key concepts
* and the key knowledge within the outcome
* In Unit 4 Outcome 2 Software security we are dealing with:
* Digital systems
* Data and information
* and Interactions and impact.
* The key knowledge is briefly listed on the right of the table.

Slide 11:

* In Unit 4 Outcome 2 Software security, students should be able to:
* respond to a teacher-provided case study
* examine the current software development security strategies of an organisation
* identify the risks and the consequences of ineffective strategies, and
* recommend a risk management plan to improve current security practices.
* Total marks will contribute 10 per cent to the study score and the total marks will be out of 100.

Slide 12:

* Students will:
* analyse and discuss current security controls
* identify and discuss potential risks to software and data security
* propose and apply criteria to evaluate current security practices
* identify and discuss possible legal and ethical consequences, and
* recommend and justify a risk management plan
* The assessment task is a SAC whereby:
* students will respond to a teacher-provided case study, and
* students will address the VCAA performance descriptors.

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* For further information please contact:
* The Curriculum Manager of Digital Technologies at the Victorian Curriculum and Assessment Authority.
* Thank you for watching this video.