

Software Development: Object Oriented Programming

(H171 35)

The Unit Project “A version of the Sokoban game”

Criteria for successful completion

**Outcome 1**

A candidate’s response can be judged to be satisfactory where the evidence produced shows the candidate has successfully investigated and applied appropriate object oriented programming techniques and applied them appropriately to a design

* Object oriented concepts and terms
* Object oriented programming techniques
* Objects and classes
* Attributes and methods
* Parameter passing
* Abstraction, encapsulation and information hiding
* Inheritance
* Polymorphism
* Association
* Aggregation and collection
* Coupling and cohesion

**Outcome 2**

A candidate’s response can be judged to be satisfactory where the evidence produced shows the candidate has successfully investigated and applied appropriate object oriented programming techniques and applied them appropriately to a design

* Declaring and initialising variables
* Using operators
* Implementing control structures
* Defining data structures
* Accessing and manipulating data structures
* Using parameter passing
* Creating classes
* Creating instances of classes
* Creating relationships between classes
* Creating constructor methods
* Use of exceptions
* Use of standard object libraries
* Documenting code

**Outcome 3**

Candidates must show that they can produce completed test documentation recording both the expected results of the test data and the actual results

The test data should be sufficient to adequately test the implemented solution in scope and range

The candidate will be expected to record and evaluate the results of the test runs

Where there are discrepancies between the expected results and the actual results, the coding must be amended and corrected accordingly

* Implementing a test plan using a defined strategy
* Maintaining test documentation
* Evaluating results of test runs
* Amending code as necessary

Assessors must assure themselves of the authenticity of each candidate’s submission