

ASSESSMENT BRIEF

| COURSE: Bachelor of IT/Bachelor of Business | | | | |
|--|---|--|--|--|
| Unit Code: | OODP101 | | | |
| Unit Title: | Object Oriented Design and Programming | | | |
| Type of Assessment: | Assessment 3 - Individual Programming and demonstration | | | |
| Length/Duration: | 20 hour | | | |
| Unit Learning Outcomes addressed: | Demonstrate basic knowledge of object oriented programming concepts and programming problems Analyse and dissect simple design and programming problem Implement a well-designed modularized solution to small programming problems Develop and/or implement testing schedules | | | |
| Submission Date: | Week 8 | | | |
| Assessment Task: | Individual Programming and demonstration | | | |
| Total Mark: | 20 Marks | | | |
| Weighting: | 20% of the unit total marks | | | |

Students are advised that submission of an Assessment Task past the due date without a formally signed approved Assignment Extension Form (Kent Website <u>MyKent Student Link</u>> FORM – Assignment Extension Application Form – Student Login Required) or previously approved application for other extenuating circumstances impacting course of study, incurs a 5% penalty per calendar day, calculated by deduction from the total mark.
 For example. An Assessment Task marked out of 40 will incur a 2 mark penalty for each calendar day.

More information, please refer to (Kent Website <u>MyKent Student Link</u>> POLICY – Assessment Policy & Procedures – Student Login Required)

ASSESSMENT DESCRIPTION:

Your task is to design, develop and test an application using Java Programming language for the below customer requirement for their small firm in Australia.

Design, Develop and test the logic for an application that allows a user to enter employee name continuously until a sentinel value is entered. Also input each employee's hourly wage and hours worked. After taking input, compute each employee gross pay (hours times rate), withholding tax percentage according to the table given below, withholding tax amount and net pay (gross pay minus withholding tax).

| Weekly gross pay (\$) | Withholding percentage (%) |
|-----------------------|-------------------------------|
| \$0-\$300.00 | 10 |
| \$300.01-\$500.00 | 13 |
| \$500.01-\$800.00 | 16 |
| \$800.01 and up | 18 |

Display all the results for each employee. After the last employee has been entered, display the sum of all hours worked, total gross payroll for all employees and net payroll for all employees.

DESIGN TASK1:

Draw a Flowchart and Pseudocode for required functionalities of program

DEVELOPMENT

TASK 2

- 1. Display the welcome message (Student ID, Student Name)
- 2. Ask from user to enter the employee names, hours worked and hourly rate. Keep asking for new employee until user enter a sentinel value to end the program.
- 3. Compute and display each employee's gross pay, withholding tax percentage, withholding tax amount and net pay.

- 4. Use parallel arrays to store hours worked, gross pay and net payroll of each employee.
- 5. Display the output on screen

TEST

TASK 3:

| TEST DOCUMENT | | | | | | | |
|-------------------|-----------|--------------|------------------|----------------|--|--|--|
| APPLICATION NAME: | | TESTER NAME: | | | | | |
| Case ID | Test case | Test Data | Expected Outcome | Actual Outcome | | | |

ASSESSMENT SUBMISSION:

Week 8

MARKING GUIDE (RUBRIC):

| Marking Criteria | Max Marks |
|---|-----------|
| Appropriate pseudocode and flowchart for tasks explained in development | 3 |
| Display welcome message and ask for employee names again and again until a sentinel value is entered using appropriate looping structure | 2 |
| Compute and display each employee's gross pay, withholding tax percentage, withholding tax amount and net pay | 4 |
| Use parallel arrays to store hours worked, gross pay and net payroll of each employee. | 2 |
| Output with correct details | 3 |
| Quality of Code and comments | 2 |
| Modularisation | 2 |
| Write min of 4 test cases for the above programme developed | 2 |
| Total | 20 |

GENERAL NOTES FOR ASSESSMENT TASKS

Content for Assessment Task papers should incorporate a formal introduction, main points and conclusion.

Appropriate academic writing and referencing are inevitable academic skills that you must develop and demonstrate in work being presented for assessment. The content of high quality work presented by a student must be fully referenced within-text citations and a Reference List at the end. Kent strongly recommends you refer to the Academic Learning Support Workshop materials available on the Kent Learning Management System (Moodle). For details please click the link <u>http://moodle.kent.edu.au/kentmoodle/mod/folder/view.php?id=3606</u> and download the file titled "Harvard Referencing Workbook". This Moodle Site is the location for Workbooks and information that are presented to Kent Students in the ALS Workshops conducted at the beginning of each Trimester.

Kent recommends a minimum of **FIVE (5)** references in work being presented for assessment. Unless otherwise specifically instructed by your Lecturer or as detailed in the Unit Outline for the specific Assessment Task, any paper with <u>less</u> than five (5) references may be deemed not meeting a satisfactory standard and possibly be failed.

Content in Assessment tasks that includes sources that are <u>not</u> properly referenced according to the *"Harvard Referencing Workbook"* will be penalised.

Marks will be deducted for failure to adhere to the <u>word count</u> if this is specifically stated for the Assessment Task in the Unit Outline. As a general rule there is an allowable discretionary variance to the word count in that it is generally accepted that a student may go over or under by 10% than the stated length.

GENERAL NOTES FOR REFERENCING

References are assessed for their quality. Students should draw on quality academic sources, such as books, chapters from edited books, journals etc. The textbook for the Unit of study can be used as a reference, but not the Lecturer Notes. The Assessor will want to see evidence that a student is capable of conducting their own research. Also, in order to help Assessors determine a student's understanding of the work they cite, all in-text references (not just direct quotes) must include the <u>specific page number(s)</u> if shown in the original. Before preparing your Assessment Task or own contribution, please review this 'YouTube' video (Avoiding Plagiarism through Referencing) by clicking on the following link: link:

http://moodle.kent.edu.au/kentmoodle/mod/folder/view.php?id=3606

A search for peer-reviewed journal articles may also assist students. These type of journal articles can be located in the online journal databases and can be accessed from the Kent Library homepage. Wikipedia, online dictionaries and online encyclopaedias are acceptable as a starting point to gain knowledge about a topic, but should not be over-used – these should constitute no more than 10% of your total list of references/sources. Additional information and literature can be used where these are produced by legitimate sources, such as government departments, research institutes such as the National Health and Medical Research Council (NHMRC), or international organisations such as the World Health Organisation (WHO). Legitimate organisations and government departments produce peer reviewed reports and articles and are therefore very useful and mostly very current. The content of the following link explains why it is not acceptable to use non-peer reviewed websites (Why can't I just Google?): <u>https://www.youtube.com/watch?v=N39mnu1Pkgw</u> (thank you to La Trobe University for access to this video).