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| **ASSESSMENT TASK NOTIFICATION** | | |
| **COURSE** | **Year 12 Software Design and Development** | |
| **TASK TITLE** | **Assessment Task 3: Python Programming Task and documentation** | |
| **TASK WEIGHT** | **30%** | |
| **DATE OF NOTIFICATION** | **5 June 2021** | |
| **DUE DATE** | **Term 2 Friday - 9am 18 June 2021** | |
| **OUTCOMES ASSESSED** | | |
| **You will be assessed on your demonstration of the following outcomes:**  H3.2 constructs software solutions that address legal, social and ethical issues  H4.2 applies appropriate development methods to solve software problems  H4.3 applies a modular approach to implement well-structured software solutions and evaluates their effectiveness  H5.1 applies project management techniques to maximise the productivity of the software development  H5.2 creates and justifies the need for the various types of documentation required for a software solution  H5.3 selects and applies appropriate software to facilitate the design and development of software solutions  H6.3 uses and describes a collaborative approach during the software development cycle | | |
| **TASK DESCRIPTION** | | |
| **Task Description:** Create a program and project documentation as itemised in pg2 Marking Guidelines. This will demonstrate your communication and research skills, project management and modelling techniques and the coding skills that you have learned in this course.  **Language to Use**: Python 3 and pygame.  **Software Development Approach:** You - *the developer* are using the ‘structured’ approach with the 5 distinct stages of Software Development Cycle (SDC) to produce a high quality software solution with known requirements that meets (the teacher) – *the clients* expectations reaching completion by due date milestone.  **Project Documentation:** [*Please use and edit page 3 ‘ Attachment 1: Assessment Task CASE tool*](file:///C:\Users\elloydjames\Downloads\attach1_11SDD_AT1_CASE%20toolTemplate.docx) *‘ as you populate this word file ensure that it includes* ***all the*** *documentation items in this one file. i.e.* adding tables, *formatting headings, updating the Table of Contents,* add your details in the header and embed the Gantt chart and Data dictionary as excel objects. | | |
| **MARKING** | | |
| **You will be assessed on your:**   * Knowledge of legal, social and ethical issues and their effect on software design and development. * Skills in designing and developing software solutions. * Skills in management appropriate to the design and development of software solutions. * Skills in communication associated with the design and development of software solutions.   as outlined in Marking Guidelines. | | |
| **Head Teacher:** **Di Stevens: Head Teacher of Computing** | | |
| *With regards to Illness/Misadventure, Absence or submitting an Application for Extension, students must follow the policy as outlined in your copy of the Assessment Handbook, which is also available on our website and the Millennium Student Portal.* | | |
| **Administration Office  Telephone: 65568100**  **Fax: 65568105  email: camdenhave-d.school@det.nsw.edu.au  Valley View Rd. Laurieton NSW 2443** | | **AT** |

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| **Marking Guidelines** | **Outstanding** | **HIGH** | **SOUND** | **BASIC** | **LIMITED** |  |
| **Issues related to software design**  1: Comments in all functions also includes Author, date, purpose (any broken code is included  2: Coding RESEARCH -At least three web references  3: Logbook- References of all source code including the tutorial code as- sentdex at pythonprogramming.net/pygame.  4: Game Help function is working, user friendly and inclusive.  5: Game User Interface has less than 3 spelling errors.  comments | All items are completed to an outstanding level  15 -12 marks | Some or all  are completed to a high level  12-9 marks | Some or all  are completed to a sound level  9-6 marks | Some or all  are completed to a basic level  6-3 marks | Some are completed to a limited level  3-0 marks | 15 marks |
| *Using creativity and a depth in understanding of coding to expand original tutorials on Pygame into a new game. Be sure to include and document more advanced features and /or levels.*   1. The game includes collision detection that has relative boundaries that are close to the visual size of the objects and frame boundary. 2. Excellent screen design with new elements that are appropriately placed. 3. Add interactivity/levels/ interest/animation to the game play 4. User friendly User Interface with HELP inclusive instructions 5. Most or all code working as expected. 6. Modularised approach to coding is attempted, Main game loop is a separate file. 7. Three variables/ and three functions have been given new meaningful names 8. Test Report of final game: a table with 3 type of computers and 3 type of users. 9. Evaluation of the effectiveness of the software solution compared to the design specs (3 sentences)   10. Maintenance: discussion future considerations (3 sentences) | All items are completed to an outstanding level  30- 24 marks | Some or all  are completed to a high level  24-18 marks | Some or all  are completed to a sound level  18-12 marks | Some or all  are completed to a basic level  12-6 marks | Some or all  are completed to a limited level  6-0 marks | 30 marks |
| **Managing and Documenting:**   1. Design specifications : create a table of 3 user and 3 developer   **Create project management tools**   1. Logbook – dates, issues, solutions, also see issues and communication. 2. Gantt chart – dates, stages, sub-tasks, milestones.   **Create modelling tools to fully describe the solution**   1. Context Diagram – Inputs, Outputs and external entities. 2. Partial Data Dictionary -sorted into data types then A-Z. 3. Storyboards - game screens, titles and links.   **Use of software**   1. Uses Excel spreadsheet program to create Gantt chart and data dictionary. 2. Uses Word template to format headings with TableOfContents(TOC) and header. 3. Inserts 2 linked excel objects into the word file. Include excel files in assessment folder. 4. Uses IO draw to create Context diagram and Storyboards. | All items are completed to an outstanding level  30- 24 marks | Some or all  are completed to a high level  24-18 marks | Some or all  are completed to a sound level  18-12 marks | Some or all  are completed to a basic level  12-6 marks | Some or all  are completed to a limited level  6-0 marks | 30 marks |
| **Communication skills associated with software design and development :**  1: Uses ‘[GITHUB’.](https://github.com/) Create account and add final project to GITHUB and share link to teacher by due date -time.  2: Uses [‘stack overflow’.](https://stackoverflow.com/) Create account and posts.  3: Logbook: stack overflow posts and github commits are documented in log.  4: Logbook: Each new game feature is noted and itemised.  5: Assessment folders and files are suitably organised and named, Prints professionally preview done. | All items are completed to an outstanding level  15 -12 marks | Some or all  are completed to a high level  12-9 marks | Some or all  are completed to a sound level  9-6 marks | Some or all  are completed to a basic level  6-3 marks | Some or all  are completed to a limited level  3-0 marks | 15 marks |

Attachment 1: *Assessment Task CASE tool*

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Are you aiming at this being a professional document that presents and prints well? You may view this document from a marketing viewpoint and therefore you may add choose to also add a cover sheet, an overview of game design, cool images etc P.S. before uploading delete this highlighted text and all other teachers page hints etc and please check the ‘print preview’ to ensure it prints .

# “program name” Design Specifications

(See 12SDD textbook page 117)

# “program name” Log book

(see [SDD course specifications](https://educationstandards.nsw.edu.au/wps/wcm/connect/44325629-51c6-4330-8bf8-662d5cfbe5fb/software-design-development-course-specs.pdf?MOD=AJPERES&CVID=) Page 22)

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| --- | --- | --- | --- | --- |
| Date /Time | Description of progress | Tasks achieved | Issues- stumbling blocks | references |
|  |  |  |  |  |

# ‘program name” Gantt chart

Option Embed excel object here

# “program name” Context Diagram

(see [SDD course specifications](https://educationstandards.nsw.edu.au/wps/wcm/connect/44325629-51c6-4330-8bf8-662d5cfbe5fb/software-design-development-course-specs.pdf?MOD=AJPERES&CVID=) Page 13)

Game System

User

# “program name” Partial Data Dictionary

(See [SDD course specifications p 19](https://educationstandards.nsw.edu.au/wps/wcm/connect/44325629-51c6-4330-8bf8-662d5cfbe5fb/software-design-development-course-specs.pdf?MOD=AJPERES&CVID=) use 1st 2nd 5th columns as example below) Embed excel object here

|  |  |  |
| --- | --- | --- |
| Data item (variables) | Data Types ( sort data types together) | Description (of what the variable does) |
| CharacterName | string | Main character of game |
| QuestionsRight | integer | Counts correct answers |

# “program name” Storyboard

(see [SDD course specifications](https://educationstandards.nsw.edu.au/wps/wcm/connect/44325629-51c6-4330-8bf8-662d5cfbe5fb/software-design-development-course-specs.pdf?MOD=AJPERES&CVID=) Page 20)

“program name” Test Report of final game:

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| --- | --- | --- | --- | --- |
| **User** | **Computer specs** | **Feedback** | **Observation Feedback** |  |
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“program name” Evaluation :

**of the effectiveness of the software solution compared to the design specs (3 sentences)**

“program name” Maintenance:

**discussion of future considerations (3 sentences)**