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| **Diagram  Description automatically generated** | **BTEC NATIONAL AWARD LEVEL 3 IN IT**  |

**UNIT 9: IT PROJECT MANAGEMENT**  **(20156K)**

# KNOWLEDGE AND SKILLS EXERCISE DATE SET: 20th October 2021

# Overall Aim *(See Assessment Objectives – https://qualifications.pearson.com/content/dam/pdf/BTEC-Nationals/Information-Technology/2016/specification-and-sample-assessments/specification-pearson-btec-level-3-national-diploma-in-information-technology.pdf)*

This exercise has been written in order for you to:

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| **Unit 9** |
| * Investigate the principles and methodologies of IT project management as used in industry
* Carry out a project initiation for an IT project
* Carry out the planning, execution, monitoring and controlling of an IT project, using an appropriate methodology
* Undertake the closure of a project by reflecting on the success of personal performance and the project outcome.
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During this exercise (and for the summative assessment to have a successful outcome and meet your next Benchmark) you must submit work for all the tasks highlighted **red** in this document. However, the college expects you to submit work relating to the **red** **and** **orange** text. You will be able to achieve the **best outcome** if your work covers the **red, orange** and **green** text.

Please note that all work must be submitted to Godalming Online by the published deadlines. **All deadlines are Friday 1.15pm unless otherwise stated**. All work submitted **must be your own work**. Any reference to others’ work must be referenced in a Harvard style bibliography (see Godalming Online BTEC IT Resources (RQF)site). During this assignment any work submitted must be uploaded to Godalming Online BTEC Upload area. Do remember the assignment on GOL has an upload limit of 20 files with file size limits. All work is passed through plagiarism software. Plagiarism is a serious matter – please see Pearson BTEC Plagiarism Factsheet on GOL.

Scenario

**Following the success of their last games development venture, Dodgy Artists want to expand their Games Development department and need to set up some planning systems to ensure the process of design runs smoothly.**

**They have contracted a project management expert (Greta Life) to assist with the process of developing a new computer game. As the Junior Games Developer for Dodgy Artists, you have been chosen to work with Greta and utilize their expertise in project planning the design of a new game. You will have to carry out some research into planning techniques used in industry, develop project management skills of your own and use project management software to demonstrate that you can plan, monitor, execute and review the process of designing a new game.**

**Task 1: Principles and Methodologies Investigation**

**1(a)** Research and investigate the key principles and methodologies of IT project management as used in industry. Based on your research write up your findings, compare and evaluate the different methods. Your work **must include the italic elements below.** You can present this work using a communication method of your choice – an audio recording, a word-processed document, a presentation, a video, etc.

**1(b)** **Explain, using appropriate definitions, the characteristics of different methodologies applied in IT projects.**

***Key Principles:***

*Project definitions Uses; define points in time; scope – objectives and benefits; budget implications; time and quality constraints; risks and mitigation of each; project life cycle; 5 stages of life cycle.*

***Characteristics:***

*PRINCE 2®: suitability; stages; management (job roles and responsibilities, quality assurance, tool, testing and deployment); benefits; limitations.*

*Rapid application development (RAD): suitability; stages; management (job roles and responsibilities, quality assurance, tool, testing and deployment); benefits; limitations.*

*Waterfall: suitability; stages; management (job roles and responsibilities, quality assurance, tool, testing and deployment); benefits; limitations.*

*Agile: suitability; stages; management (job roles and responsibilities, quality assurance, tool, testing and deployment); benefits; limitations.*

**1(c) Explain the project management structures applied in different IT projects.**

***Structures:***

• User requirements, including: a ‘functional requirement’ of the system; a ‘non-functional requirement’ to satisfy in the system; Project job roles and responsibilities; quality assurance (key and continuous); operational test environment; live deployment.

**1(d)** Using your research and findings write a report to **compare, using appropriate definitions, the characteristics of different methodologies and structures applied in IT projects**

***You should compare:*** *3 methodologies; for each explain what is involved at each stage of the project and cover a comprehensive range of benefits and limitations of using each methodology based on the context of the project. You should compare the structures used in the delivery of each project (including user requirements, project job roles and responsibilities, quality assurance, testing and deployment), and how they play an important role in the management of the project.*

**1(e)** Extend the above comparison by adding sections that **evaluate, using appropriate definitions, the characteristics of different methodologies and structures applied in IT projects.** You should conclude your evaluation **by selecting and justifying** a methodology to suit your planned approach to solving the concept of games design (as outlined in the remaining tasks in this exercise).

***You should evaluate:*** *3 methodologies; stages of the project; a comprehensive range of benefits and limitations of using each methodology based on the context of the project. You should evaluate the structures used in the delivery of each project (including user requirements, project job roles and responsibilities, quality assurance, testing and deployment), and evaluate the importance of each role in the management of the project.*

**UPLOAD:** *(to Godalming Online)* **Task 1 Deadline Date: 12th November 2021**

*Filenames:*

❶ U9P1P2Principles&Methodologies

❷ U9M1D1CompareEvaluateSelect

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| **L6th PARENTS EVENING 9 November 2021** |

**Task 2: Project Initiation for an IT Project**

**2(a)** SuperMassive Games (SMG) have approached Dodgy Artist (who you work for) and have asked the company to respond to a pitch for a new game idea.

**Watch the following** links to familiarise yourself with SMG’s requirements **and locate the Client Brief** (Request For Pitch) on GOL BTEC IT Resources RQF site.

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| SUPERMASSIVE GAMES CLIENT BRIEF MEETING – watch ALL the following videos: <https://estream.godalming.ac.uk/View.aspx?id=15687~5o~hmezrezeK8><https://estream.godalming.ac.uk/View.aspx?id=15686~5n~GLQaHfnRm6><https://estream.godalming.ac.uk/View.aspx?id=15685~5m~eYAyXgcwPg><https://estream.godalming.ac.uk/View.aspx?id=15684~5l~EnkWm5Smre>Locate the Client Brief in Unit 9 section of BTEC IT Resources (RQF) site on GOL |

**2(b)** Outline the Client Requirements by defining and identifying the following elements on the Client Brief: *Stakeholders; business case requirements; specific objectives/deliverables; benefits and success factors; project boundaries/scope; constraints; possible consequences of failure to hit deadlines or produce the product; risk mitigation.*

**2(c)** Develop skills and use Microsoft Project/LibreProject to create a plan for the execution

and scope of **TWO** of the following alternative options. Each plan should show a timetable, Gantt chart, critical path and review points (milestones):

Option 1: Develop the game in-house with a developer

Option 2: Develop the game with an in-house team of developers

Option 3: Outsource the development.

**Research with some inconsistencies an IT problem, based on a given theme and scope out at least two alternative solutions.**

**2(d)** For the two plans conduct a feasibility study in which you outline and compare and evaluate each realistic solution. You should cover evaluation and judgement on criteria such as management; communication with stakeholders & developers; quality assurance; risk mitigation; monitoring; costs/budget and timeframe/slippage. Your evaluative comments should be accompanied by justification of each criteria and detailed justification of your preferred solution.

**Prepare with some inconsistencies a feasibility study on an IT project and select a preferred solution.**

**Assess consistently at least two adequately researched solutions to an IT problem on a given theme recommend the preferred solution.**

**Evaluate consistently and comprehensively at least two researched and realistic solutions to an IT problem on a given theme and justify, using logical chains of reasoning, a preferred solution.**

**UPLOAD:** *(to Godalming Online)* **Task 2 Deadline Date: 21st January 2022**

*Filenames:*

❶ U9ClientRequirements

❷ U9P3PlansForTwoOptions

❸ U9P4M2D2FeasibilityReport

**Task 3: Planning a Solution and Initial Game Ideas**

From this point onwards you should plan the stages of your solution, follow the plan and monitor the progress of the project against this plan, adapting the plan as circumstances change. You can compare your progress using the Gantt chart, critical path, review points etc. You need to make notes as you go commenting on whether you are keeping to the time scales, if not, what adjustments you need to make to ensure that you meet the final deadline.

**3(a)** Prepare for your chosen option a ‘detailed’ project plan for the proposed execution of the Games Design project.

 *‘detailed’ = identification of phases and activities, parallel and/or sequential processes, predecessors, start and end dates, critical path, Gantt chart, resources needed for each activity, timescales, review/milestone points, likelihood of success*

**Plan with some inconsistencies and/or omissions the implementation of an IT project.**

**3(b)** Start documenting (in a Log Book/Diary) the stages taken to plan, execute, monitor, adapt and close this project. This is to be a live document and **must be** regularly updated.

**3(c)** Following the receipt of the SMG client brief, sketch out your ideas for **TWO VERSIONS OF THE GAME** on two different storyboard sheets (Induction Assignment should include one) Produce a short document which explains the two ideas you have, and then highlights which **ONE** you have decided to take forward to full design phase. Justify reasons for your choice.

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| **UPLOAD:** *(to Godalming Online)***Task 3 Deadline Date: 21st January 2022***Filenames:*❶ U9P5DetailedProjectPlan❷ U9LogBook❸ U9TWOStoryboards |

**Task 4/E: Final Game Design,** **Executive Summary** **& Monitoring of a Project**

**4(a)** Create a design portfolio for your **chosen game** which should consist of brainstorming notes and ideas, sketches of backgrounds, main characters, mood board etc. You should also include market research notes and fully justify ALL your decisions. Include the following:



**4(b)** In accordance with the requirements from SMG (and your notes) produce and upload your Executive Summary. This document should summarise your game idea and should cover the first part of the “*Deliverables*” section of the Supermassive Games Brief (RFP). You should ensure that each of the 6 bullet points have been included. Also, the “*Constraints and Considerations*” section (4 bullet points) should be covered.

**4(c)** Update your Log Book to keep a record of your activities. This log should include comments which demonstrate effective communications with stakeholders at all stages of the project.

**Execute with some inconsistencies and/or omissions the implementation of an IT project.**

**Monitor and control with some inconsistencies and/or omissions the implementation of an IT project.**

**Perform soundly and consistently appropriate project management processes to implement an IT-based project.**

**Perform consistently and effectively appropriate project management processes to implement an IT-based project.**

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| **UPLOAD:** *(to Godalming Online)***Task 4/E Deadline Date: 4th February 2022***Filenames:*❶ U9P6pP7pM3pD3pDesignPortfolio❷ U9P6pP7pM3pD3pExecutiveSummary❸ U9LogBook  |

**Task 5/F COHORT A Practice Presentation – upload to Teams Breakout Room**

**5(a)** Prepare and practice your 5 minute presentation and upload to your Teams Breakout Room in order to CXM/EJE to review. You need to produce pitch slides, speaker’s notes and handouts**.**

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**UPLOAD**: *(to Teams Breakout Room)***Task 5a/F Deadline Date: 11th February 2022**

*Filename:*

❶ U9P6pP7pM3pD3pPracticePitchEvidence

**5(b) Pitch Presentation** **– venue & appointments TBA – commencing 21st February 2022**

* Present a game concept to stakeholders with some appropriate use of subject terminology.
* Present a game concept to stakeholders competently and with generally correct use of subject terminology.
* Present a game concept to stakeholders to near-professional standards and consistently using subject terminology correctly.

A video will be taken during your presentation.

**Execute with some inconsistencies and/or omissions the implementation of an IT project.**

**Monitor and control with some inconsistencies and/or omissions the implementation of an IT project.**

**Perform soundly and consistently appropriate project management processes to implement an IT-based project.**

**Perform consistently and effectively appropriate project management processes to implement an IT-based project.**

**UPLOAD:** *(to Godalming Online)***Task 5b/F Deadline Date: 25rh Feruary 2022**

*Filenames:*

**❶** U9P6pP7pM3pD3pPitch

❷ U9P6pP7pM3pD3pPitchVideo (held by DCT Department)

**Task 6: Closure of Project - Review of Planning, Performance and Product**

With your pitch complete you need to ‘close’ the project by reviewing the planning process, your performance and the end product (the game design).

**6(a)** Write a formal report demonstrating a balanced and consistently good technical understanding and analysis of the project, including the effective application of relevant project managements skills and behaviours throughout the project initiation and implementation (planning, execution and monitoring and control) phases. The following text provides you with guidelines to help you with this review.



 Make reference to extracts from your Log Book so as to highlight that you have monitored the project against the project plan, adapting the plan as circumstances change. This report should also include comments which demonstrate effective communications with stakeholders at all stages of the project.Finish the report with a balanced conclusion regarding successes and achievements, problems encountered, lessons learnt and where improvements could be made.

As an appendix to the report include your completed Log Book to show that you have followed a project plan to carry out a defined project.

**Explain how project management skills were used in the management of an IT project.**

**Explain how relevant behaviours were applied during the management of an IT project.**

**Recommend improvements to the project management skills and behaviours applied during an IT project.**

**Demonstrate consistently good technical understanding and analysis of the project, including the effective application of relevant project management skills and behaviours.**

**6(b)** Following your pitch presentation you will be issued with an assessment observation sheet which will incorporate internal and external assessment comments.

**UPLOAD:** *(to Godalming Online)* **Task 6 Deadline Date: 11th March 2022**

*Filenames:*

**❶** U9P8P9M4D4ClosureReport

❷ U9PitchObservation

**The Knowledge & Skills exercise is now complete.**

**To achieve a grade for the unit you are required to apply the knowledge and skills acquired to the Controlled Assessment/Benchmark assignment.**

**OPTIONAL PROGRESS REVIEW INTERVIEW – 24-28/1/2022**

**(Book appointment with NMS/DDS if you would like to discuss your progress prior to Controlled Assessment week)**

**CONTROLLED ASSESSMENT**

**21st - 25th March 2022 4:15pm**

**This is a compulsory activity.**

**During this time (in normal lesson time) you will be provided with a Unit 9 Assignment. You are requested to submit work to meet the requirements of the assignment. The work you submit must be your own work and you MUST not have copied or adapted any un-sourced work.**

**The work you submit must meet the requirements of Unit 9 and must be uploaded to Godalming Online (in the uploaded area provided for the Controlled Assessment). Only work submitted on-time to Godalming Online\* will be assessed for the unit’s Final Mark and you will NOT have a chance to change the final decision.**

**The file name of each piece of submitted work must clearly identify the Unit and Criteria to which it relates.**

**\*Unless otherwise requested by JMH**

Unit 9



