# Assignment Briefing Sheet (2023/24 Academic Year)

## Section A: Assignment title, important dates and weighting

|  |  |  |  |
| --- | --- | --- | --- |
| Assignment title: | Assignment 3 Project Report | Group or individual: | INDIVIDUAL |

|  |  |  |  |
| --- | --- | --- | --- |
| Module title: | Work Based Learning-  Software Development/ Networks and Cybersecurity | Module code: | 5FTC1312- 5FTC1313 / 5FTC1310-5FTC1311 |

|  |  |  |  |
| --- | --- | --- | --- |
| Module leader: | Meena Mengle/ Sahar Khajeh | Moderator’s initials: |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Submission deadline:** | **w/c 28/03/2024** | Target date for return of marked assignment: | **20 /04/2024** |

|  |  |  |
| --- | --- | --- |
| You are expected to spend about | 50 | hours to complete this assignment to a satisfactory standard. |

|  |  |  |
| --- | --- | --- |
| This assignment is worth | **40%** | of the overall assessment for this module. |

## Section B: Student(s) to complete

|  |  |
| --- | --- |
| **Student ID number** | **Year Code** |
|  |  |
|  |  |

|  |
| --- |
| **Notes for students**   * For undergraduate modules, a score above 40% represent a pass performance at honours level. * For postgraduate modules, a score of 50% or above represents a pass mark. * Late submission of any item of coursework for each day or part thereof (or for hard copy submission only, working day or part thereof) for up to five days after the published deadline, coursework relating to modules at Levels 0, 4, 5, 6 submitted late (including deferred coursework, but with the exception of referred coursework), will have the numeric grade reduced by 10 grade points until or unless the numeric grade reaches or is 40. Where the numeric grade awarded for the assessment is less than 40, no lateness penalty will be applied. * Late submission of referred coursework will automatically be awarded a grade of zero (0). * Coursework (including deferred coursework) submitted later than five days (five working days in the case of hard copy submission) after the published deadline will be awarded a grade of zero (0). * Regulations governing assessment offences including Plagiarism and Collusion are available from <https://www.herts.ac.uk/about-us/governance/university-policies-and-regulations-uprs/uprs> (please refer to UPR AS14) * Guidance on avoiding plagiarism can be found here: <https://herts.instructure.com/courses/61421/pages/referencing-avoiding-plagiarism?module_item_id=779436> * Modules may have several components of assessment and may require a pass in all elements. For further details, please consult the relevant Module Handbook (available on Studynet/Canvas, under Module Information) or ask the Module Leader. |

# Assignment Briefing Sheet (2023/24 Academic Year)

|  |
| --- |
| **This Assignment assesses the following module Learning Outcomes (from Definitive Module Document):**  Software Development/ Networks and Cybersecurity   * Compare and contrast theoretical approaches to IT Networking/software development projects including design and security * Examine and analyse the requirement for the implementation of a networking/software development project to an agreed specification plan and timescale * differentiate appropriate and effective evaluative processes and their application. * select, specify, plan and develop a software application (relevant to the needs of an organisation), as part of managing an IT Networking/software development project. * apply proposed solutions, underpinned by appropriate technical research. * compile and present a reflective project report to illustrate their own performance. |
| **Assignment Brief:**  **Final Written Report- 3500 words (Submit via Canvas 03/2024)**  This assignment makes up **40%** of the final grade for this module.  **This report is the most substantial assignment for the project** and should be tackled accordingly. It should be a detailed report on the design, implementation, testing and evaluation phases of the project, including, where appropriate, evidence of project work e.g. system designs, implementation work, programming code of the main functions, any new code developed by you and used for implementation of the complete software system or of the prototype, etc.  Whilst it is **not** necessary to include all raw data, a **sample** should be selected and a **clean example** given of any specialist work done on the product of your project, such as the most important functions you have developed. The design, implementation and testing part of this assignment, should tell a good story about these stages, the problems and issues you faced and how you solved these issues. The evaluation part of the report, should evaluate all stages – the planning, the designs, implementation, testing and the product itself. It should also focus on what you learned from this project and what you would do differently if running a similar project next time.  As this is **a development project**, the report, written in third person should be accompanied by the final product, which can be a prototype of the system/network developed, which will be demonstrated as part of assignment 4, to show how the final system would work, or to display the main functionalities.  The formal report should be sectioned and each section should use headings and a numbering system. It is usual to indent the section headings and then to double indent the individual parts within the section, like this:  Report Title  1.0 Section One  1.1 First part of section one  1.2 Second part of section one (and so on)  In the Appendix, you MUST include copies of all your **Project blogs** produced since assignment 2. You are required to reference these when discussing your project management skills in your report.Reference should be made to **your employer’s evaluation** form [assessing your performance at the end of the project], which must also be included in the Appendix.  **IMPORTANT NOTE!!!!: Any students following a specialist subject for their Foundation Degree will need to make sure the Final Project Report is directly relevant to their particular subject. The students following the Networking pathway of the FD Computing Technologies will need to undertake and the Software Development Pathway undertake and complete an IT Software Development Project.**  ***All sections of the report must be reasonably attempted and written in third person***  ***All WBL assessments must be reasonably attempted***  **Additional Information for students in completing assignment 3:**   * Students will be expected to abide by a word count of **3500** words. * Students **must include a word count** at the end of the assignment. * It is important to refer to a **wide** **variety** of academic sources in relation to your work-related project topic. You should not rely on one source, or one type of source. It is important to consult a selection from text books, reports, credible websites, and academic journals. Minimum 20 sources. * Students **must use Harvard Referencing System.** Failure to do so will result in lost marks. * All points listed overleaf should be addressed in the report. * Assignment should be **submitted online via StudyNet** before the deadline. * The **actual product** of your Project must also be handed in to the college [eg, software system, mobile application program or website/database system]. * Students with ‘serious adverse circumstances’ should speak to their college tutor in the first instance.   Appropriate **formal report structure in third person** should be followed for this assignment, that has the following sections (apart from the title page, contents page, references page, and the appendices):  **Abstract**   * Outline of the project: aims and general outcome. It is a short description of the project from the beginning to the end focused on project goals, methodology used and the product that has been developed. This a succinct summary of the whole report.   **Section 1: Introduction**   * The purpose of the organisation and its structure. * Background to the project including discussion on why you were asked to carry out the project. * It should also give a very brief statement of the contents of each chapter of the report, just to help the reader gain an idea of how you are going to present the outcome of your work.   **Section 2: Project Methodology**   * This is a summary of the Research methods AND Project Management Methodologies you used to undertake the Project, in order to achieve both the objectives and the overall aim. It is advisable to start with an introductory paragraph, setting the pace for the rest of this section and finish the section with a brief conclusion. * The introductory paragraph will be followed by a subheading called Project Objectives, which is an analysis of how the objectives were achieved. The Project Objectives will need to be merged in this section i.e. what functionality you needed to implement in the final product, how, why, and by when. * Requirement Analysis: This subsection reports on the set of requirements that were   the basis of your project work. You are strongly encouraged to draw on references from the literature review or any primary research you carried out.   * Explain here (briefly for every phase) the project methodology and resources you have used, how you planned to do everything, from the planning phase (schedule and Gantt chart) to research, design, implementation and testing. It is a short description of the methodology and resources used in every phase.   **Section 3: Design chapter.**   * This chapter should include a discussion of design decisions that were considered and the reasons for choosing one method over another. It could also include consideration of HCI issues and how they influenced your design.   **Section 4: Development and Testing.**  The implementation chapter should provide an overview of the practical work carried out. You are strongly encouraged to draw on references from the literature here. You should concentrate on how it went, any changes to the original plans and how you dealt with changes.   * A description of methods used to carry out the project. This is a summary of the work you carried during the design, implementation and testing phases. You should say why you chose your methods, how they were used and what you have achieved during each phase; * development environment; * commentary on any uncertainties in the project specification or requirements and how you resolved them; * use of software tools (what inputs you supplied, how you configured them, what outputs were produced); * presentation and discussion of intermediate results, for instance of a program which was progressively refined or extended; * your strategy for testing your software. This might include some user evaluation of your software and if so, you should report on the outcomes.   This part of the report should also include a testing report focusing only on the major errors found and fixed. The rest of the testing goes into the appendix part explained further below.  **Section 5: Results and discussion**   * Describe the final product of your project work. * Where appropriate, discuss the meaning of your work. * To what extent have you met your original objectives and addressed the requirements? * You should include relevant, fully annotated screen dumps, flowcharts, organisational diagrams, photographs and other evidence of work as appropriate. * Your designs and your final product (or the prototype) that you have produced as part of your project must be submitted with the report. * Large sections of supplementary information should be placed in an appendix e.g. all the designs, all the implementation phases, the code, all testing, examples of work, questionnaires etc.   **Section 6: Recommendations**   * If appropriate, recommendations should be made [depends on the project]. * Finally, evaluate the impact of your project on the organisation.   **Section 7: Challenges and reflection** [This section to be *maximum of 800* words]   * It would be pertinent to reflect upon any potential changes / improvements to the way the project was conducted if you did this again. After the project is finished, in hindsight, you are supposed to know more about the project management and the technical aspects than you knew at the start of the project. This knowledge should help you to analyse the conduct of the project phases and identify the aspects that can/should change in the future. * It should also include a summary and evaluation of your personal capability and skills and how this project has improved them [cite the information from your ‘Blog’, including information on the employer’s evaluation form. These should be placed in the Appendix]. * Any challenges or problems that were encountered during the project should be discussed. Why did they arise and how were they dealt with? * Remember that challenges are not weaknesses; explain how they were dealt with and what was learned from the experience.   **Section 8: Conclusion**   * This section should draw together and close the report. It should summarise the report and the experience. Nothing new should be reported in this section.   **References**   * Apart from the accurate in-text referencing, which should follow Harvard style, you also will provide a References page, with at least 10 sources of reference for good level of depth and minimum 20 for an outstanding level.   **Appendix**   * Supplementary work should be placed in **numbered appendices**. * Completed **Employer’s Evaluation form** on your progress and performance. * The final product of the project   **Marking scheme for Assignment 3 Project Report:**  **The Harvard Referencing System is used consistently throughout the report.**  **No overall marks of 70% or above is awarded for work that is not referenced correctly or when non or minimal academic sources have been used.**   |  |  | | --- | --- | | **Task 1 Checklist** | **Maximum marks** | | **Report - Presenting work**  Use of appropriate structures, methods, language, grammar and source materials  Report presentation 5 marks  Harvard referencing 5 marks | 10% | | **Report – Planning and Analysis** The report shows integration of software development / networking theory into work and/or breadth/depth in applying theory and/or knowledge of software development/ networking | 20% | | **Report - Design, Development and Testing**  Demonstration of; development of ideas and/or design, and/or concept development, problem solving. Produce a prototype or full product from the designs. This should reflect a software development or networking concept based on chosen pathway.  Designs 15 marks, Final Product 15 marks | 30% | | **Artefact – Application/ Demonstration of Technical Skills:** Use of networking protocols/software development tools, use of appropriate applications in the solution, applying technology to problems | 20% | | **Analysis, Critical Evaluation and/or Reflection:**  Demonstration of evaluation, testing and reflection of the project development, the individual performance and the lessons learned from the project. | 20% | | **TOTAL** | **100%** | |
| **Submission Requirements:**  Your **final report** via module site assignment area;  Your **Artefact/ Prototype** (source code, links, readme file and/or any other supporting files) depending on the project. |
| **Marks awarded for:**  See the marking and grading criteria sheet attached |
| **Type of Feedback to be given for this assignment:**  Formative feedback in class. Summative written feedback based on Marking grid via Canvas. |

If the assignment is laboratory based (though not computer-based), or involves offsite activity, please attach the risk assessment form for the Internal Moderator to see.

**MARKING AND GRADING GRID ASSIGNMENT 3- 2023-24**

**Guidance to assessors and characteristics of each grade**

The following factors will be considered in marking all projects:

• The size and complexity of the task;

• Critical appraisal of your own work: the clarity of your explanation of the work you have actually completed; the evaluation of the extent of your achievement; the evaluation of your management of the project including the use you made of the project plan(s); your assessment of the success of the project overall and your identification of possible remaining or future tasks;

• Communication skills: structure of the report; coherence; quality of writing; quality of presentation.

• Scientific conventions: referencing and use of technical terms.

**This form is used by staff & students to mark and provide feedback to assist students’ future work.**

| Criteria (sections) | Clear Fail  0-29 | Marginal Fail  30-36 | Bare pass  40 - 49 | Clear pass  50-59 | Good  60 - 69 | Very good  70 - 79 | Excellent  80 - 89 | Outstanding  90 - 100 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Final Project Report: Written communication skills, use of appropriate structures, methods and language  Report presentation 5 marks  Harvard referencing 5 marks  (10%) | No discernable structure. Very difficult to follow. Many grammatical and spelling errors. No presentation of ideas.  No reference list included. | Poor structure. Has many spelling and /or grammatical errors. Poor presentation of ideas. Limited referencing in text, reference use shows inaccuracy and/or many errors | Satisfactory project report, with satisfactory, basic explanations.  Basic structure and writing style.  Quite a few grammatical errors, spelling mistakes or structural issues. Ideas are generally presented, but they lack clarity in places. The problem statements are somewhat understood and explained, but more in-depth understanding is needed. Satisfactory referencing with some errors. | Good structure. Writing is mainly clear but some spelling and / or grammatical errors with some structural issues. Ideas presented with some issues in clarity. Good standard referencing with few errors | Good structure. Writing is mainly clear but few spelling and / or grammatical errors with some structural issues. Ideas mainly presented with clarity. Good standard referencing in text, mostly accurate | Very good structure. Fluent writing style with very few errors. Very minor grammatical / spelling or structural errors. Ideas presented with excellent clarity, very good depth of analysis present. Excellent standard of referencing in text, and highly accurate | Excellent structure. Fluent writing style with very few errors. minimal grammatical / spelling or structural errors. Ideas presented with excellent clarity, excellent level of analysis. The report is presented in an excellent way using variety quality sources. Excellent standard of referencing in text, and highly accurate | Outstanding presentation and clarity. No significant grammatical / spelling or structural errors. Ideas presented with exceptional clarity. The project is described using an outstandingly structured, Outstanding standard of referencing in text and highly accurate using variety of sources (minimum 20 sources) |
| Report - – Planning and Analysis:  The report shows integration of software development / networking theory/literature into work and breadth/depth in applying this knowledge when carrying out project planning and analysis (20%) | Completely  inappropriate  solution. No  application of  methodology. No  evidence of  literature/theory  being referred to. | Limited in breadth and depth demonstrated. Literature and theory used/quoted without comment. Limited content and knowledge demonstrated. Limited or muddled understanding of the topics. | Satisfactory use of literature and theory demonstrated but limited in breadth OR depth of analysis. Uncritical and quoted without comment. Satisfactory content / level of knowledge of the topic. Some errors / omissions. | Good use of literature and theory integrated in planning and analysis stages. Depth appropriate to topic BUT moderate breadth or vice versa.  Good grasp of the topic and some of its implications. Minor errors / omissions. | Good breadth & depth demonstrated appropriate to topic.  Literature and/or theory integrated very well in planning and analysis stages  Good level of knowledge and understanding demnstrated. | Very good breadth & depth demonstrated in the planning and analysis stages. Very good integration of literature and theory into work.  Very good level of knowledge and understanding demonstrated. Covers all relevant points and issues. | Excellent breadth and depth demonstrated in the planning and analysis stages. Solutions are  innovative,  partially reframe  task in context.  Considerable  depth of  engagement,  ideas, integration  of literature /  theory | Outstanding breadth and depth demonstrated demonstrated in the planning and analysis stages. Outstanding integration of literature and/or theory into work.  Outstanding exploration and demonstration of topic showing in depth knowledge and understanding |
| Report - Design, Development and Testing Demonstration of development of project ideas, design, and concept development, problem solving. Produce a prototype or full product from the designs. This should reflect a software development or networking concept  Designs 15 marks, Final Product/Testing15 marks. (30%) | No use of appropriate technology as applied to the project idea development. No skill and application of technique demonstrated. Very high number of errors in deliverable or no deliverable submitted. | Limited use of appropriate technologies as applied to the problem domain. Limited application of skills and techniques demonstrated. Many errors in technique and/or application with high impact on final product. | Satisfactory demonstration of development of project ideas, design, and concept development, problem solving. Satisfactory application of skills and techniques demonstrated but with minor inaccuracies. Errors in technique and/or application with some impact on final product | Evidence of use of appropriate technologies as applied to the problem domain. Good and reasonably accurate application of skills and techniques demonstrated. Some errors in technique and/or application with minor impact on final product | Good demonstration of development of project ideas, design, and concept development, problem solving. High level and very accurate application of skills and techniques understanding demonstrated. Small errors in technique and/or application with little impact on final product | Very good demonstration of development of project ideas, design, and concept development, problem solving. Very good and highly accurate application of skills and techniques demonstrated. Minor errors in technique and/or application with little or no impact on final product. | Excellent Demonstration of development of project ideas, design, and concept development, problem solving. Occasionally stepping beyond expectations using sophisticated solutions. Consistently accurate and excellent application of skills and techniques demonstrated. Produce a prototype or full product from the designs covering the scope of the project. | Outstanding demonstration of development of project ideas, design, and concept development, problem solving. Occasionally stepping beyond expectations using sophisticated solutions. Consistently accurate and outstanding application of skills and techniques demonstrated. |
| Artefact - Application / Demonstration of Technical Skills:  Use of networking protocols/software development tools, use of appropriate applications in the solution, applying technology to problems (20%) | No use of appropriate technology as applied to the problem domain. No skill and application of technique demonstrated | Limited  application of  skills/ techniques  demonstrated.  Many errors in  technique /  application with  high impact on  artefact produced | Uses appropriate  tech. & application  of skills &  techniques with  inaccuracies. Errors  in technique /  application with  impact on  artefact produced. | Good use of  technology  applied to  problem domain.  Reasonably  accurate  application of  skills &  techniques  demonstrated when producing the artefact | Accurate application of skills, techniques, understanding. Small errors in technique and/ or application little impact on artefact produced | Very good application of  skills &  techniques.  Excellent use of  technology as  applied to the  problem domain and artefact produced. | Excellent  application of  skills &  techniques.  Excellent use of  technology as  applied to the  problem domain and artefact produced | Expert use of  technology as  applied to the  problem domain.  Stepping beyond  expectations  using  sophisticated  solutions. |
| Analysis, Critical Evaluation and/or Reflection:  Demonstration of evaluation, testing and reflection of the project development, the individual performance and the lessons learned from the project. (20%) | Unsatisfactory level of analysis / critical evaluation and or reflection. No application to derived solutions.  Wholly descriptive. No personal response. | Lacking in critical evaluation of  appropriate  solutions with  very limited use  of strategies, no  evaluation &little  evidence of reflection on  ideas  development, individual performance and the lessons learned from the project. | Limited evidence of analysis, critical evaluation and reflection  on  ideas  development, individual performance and the lessons learned from the project. Too descriptive in parts. Limited personal response | Satisfactory level of analysis and reflection but limited evidence of critical evaluation on ideas  development, individual performance and the lessons learned from the project. Descriptive personal response mainly restricted to immediate concerns | Appropriate level of analysis and reflection but critical evaluation could be expanded on further. Primarily descriptive personal response, sometimes restricted to immediate concerns | Very good level of analysis and reflection but limited evidence of critical evaluation on ideas  development, individual performance and the lessons learned from the project. Partial personal response tends towards descriptive | Excellent level of analysis and reflection but limited evidence of critical evaluation on ideas  development, individual performance and the lessons learned from all the stages of the project. Well-developed personal response backed by evidence. | "Expert": level of  analysis, critical  evaluation and  reflection with  application to  ideas  development, individual performance taking into consideration blogs, objectives, Gantt chart, employers’ feedback etc. Future development of the project is explored to an outstanding level. |

For an **Excellent or Outstanding** project report we expect to see evidence that you understand how the concepts and principles relevant to your chosen pathway for Foundation Degree are relevant to your project work, that you have made well-reasoned choices of appropriate tools and techniques and applied them in a thoughtful manner. There should be evidence of substantial practical achievement of very high quality, and your report should demonstrate that you can explain and critique what you have done, why you have done it, what you achieved by doing it, and how your project might be improved or extended. We expect all major issues, including the really hard and perhaps un-resolvable ones, to be properly evaluated and commented upon in the project report. We are not looking for an original contribution to knowledge, but we expect you to have unearthed and addressed all the complexities of the problem, and not to have avoided any difficulties. We expect the report to be well-structured, coherent, well-written and free of significant grammatical errors.

For a **Very Good** project report we expect to see evidence of a broad-ranging and thorough investigation of the project topic, with a methodical presentation of all the main issues. There should be evidence of a substantial quantity of practical work of a high standard relevant to your pathway, in which you have brought to bear relevant principles and practices, and chosen and applied appropriate tools and techniques. We expect to see evidence that you appreciate how your project work is related to your other studies. We expect you to evaluate properly all the main points arising in the work, although not as well as an Excellent or Outstanding Grade student. We also expect you to show that you are aware of the limitations of the work, and to recognise and comment on aspects of it that would merit further study. We would expect a very good report to be well-structured, coherent, and largely free of grammatical errors.

For a **Good** project report we expect to see evidence that you have taken a methodical approach to the work, and that you have undertaken practical work relevant to your pathway, of reasonable scale and at least to an average standard. We also expect you to demonstrate an understanding of the principal issues in your project work, and to show that you can describe what you have achieved, and that you can explain the things you have done and why you have done them. We expect a good report to be coherent and largely free of grammatical errors.

For a **Satisfactory** project report we expect to see some evidence of relevant learning and that you have a reasonable understanding of the basic issues in your project work. An appropriate quantity of practical work will have met some of the objectives to an adequate standard or better, although there may be flaws. We expect a satisfactory report to be reasonably coherent, and at least to provide an account of work done.