**Section: Programming (Advocate: Manish Gadhvi)**

**Provide a definition of what an algorithm is and outline the process in building an application.**

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| Please use this section to provide all appropriate, valid and checked http Links that point to your evidence; use multiple lines to separate multiple links |
| Please provide a short (between 3 to 8 well considered, fully proofread and reflected sentences) explanation that justifies why the evidence/links you have provided is suitable as evidence of this requirement |

**Give explanations of what procedural, object orientated and event driven paradigms are; their characteristics and the relationship between them.**

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| Link: https://github.com/matthewsides/Glossary-Of-Tech-Terms |
| The evidence is situated in the GitHub repository “glossary of tech terms”, under the programming paradigms heading in the READ.ME, categorized as the second section. This segment of the repository is suitable and meets the requirements as it defines what programming paradigms are (generalised), the different types, (the centralised methologdy of each paradigm) their characteristics and the relationships between them. |

**Write a program that implements an algorithm using an IDE.**

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| Link: https://github.com/matthewsides/Project01-TraceBall/blob/master/README.md |
| The evidence can be seen under the GitHub repository “Project1-TraceBall”, both in the imported .txt document which holds the code and the READ.ME. Which shows a print screen of the code in the applied integrated development environment (IDE). The evidence is valid as technically notepad is an IDE though not necessary a user- friendly one and image proof is shown in the READ.ME of the **working** program being written, whilst the document also briefly covers what IDE was used during development, debugging facilities, process and the features available in said IDE. |

**Explain the debugging process and explain the debugging facilities available in the IDE.**

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| Link: https://github.com/matthewsides/Project01-TraceBall/blob/master/README.md |
| The proof of explaining the debugging process and the facilities (if any) available in the IDE may be found in the GitHub repository “Project1-Traceball” in the READ.ME documentation. The evidence provided is suitable for the above requirement since it explains the debugging facilities of the IDE known as notepad, Whilst the process of debugging in the IDE in relation to the program being developed is also covered and said debugging processes may be generalised and used in other programs while using this particular IDE (notepad) or other IDE’s. |

**Outline the coding standard you have used in your code.**

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**Determine the steps taken from writing code to execution.**

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**Analyse the common features that a developer has access to in an IDE.**

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**Use the IDE to manage the development process of the program.**

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**Evaluate how the debugging process can be used to help develop more secure, robust applications.**

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**Examine the implementation of an algorithm in a suitable language. Evaluate the relationship between the written algorithm and the code variant.**

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**Critically evaluate the source code of an application which implements the programming paradigms, in terms of the code structure and characteristics.**

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**Evaluate the use of an IDE for development of applications contrasted with not using an IDE.**

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**Critically evaluate why a coding standard is necessary in a team as well as for the individual.**

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