1st SIT COURSEWORK 2: **Autumn Semester 2019**

Module Code:	**CU6051NA**
Module Title:	**Artificial Intelligence**
Module Leader:	**Sukrit Shakya** (Islington College)

Coursework Type:	**Individual**
Coursework Weight:	This coursework accounts for **80%** of your total module grades.
Submission Date:	**Week 13**
When Coursework is given out:	**Week 8**
Submission Instructions:	Submit the following to Islington College RTE department before the due date: • **Source code of the application** • **Report in PDF format** • **Presentation**
Warning:	London Metropolitan University and Islington College takes Plagiarism seriously. Offenders will be dealt with sternly.

Plagiarism Notice

You are reminded that there exist regulations concerning plagiarism.

Extracts from University Regulations on Cheating, Plagiarism and Collusion

Section 2.3: “The following broad types of offence can be identified and are provided as indicative examples …..

(i) Cheating: including copying coursework.
(ii) Falsifying data in experimental results.
(iii) Personation, where a substitute takes an examination or test on behalf of the candidate. Both candidate and substitute may be guilty of an offence under these Regulations.
(iv) Bribery or attempted bribery of a person thought to have some influence on the candidate’s assessment.
(v) Collusion to present joint work as the work solely of one individual.
(vi) Plagiarism, where the work or ideas of another are presented as the candidate’s own.
(vii) Other conduct calculated to secure an advantage on assessment.
(viii) Assisting in any of the above.

Some notes on what this means for students:

(i) Copying another student's work is an offence, whether from a copy on paper or from a computer file, and in whatever form the intellectual property being copied takes, including text, mathematical notation and computer programs.
(ii) Taking extracts from published sources without attribution is an offence. To quote ideas, sometimes using extracts, is generally to be encouraged. Quoting ideas is achieved by stating an author's argument and attributing it, perhaps by quoting, immediately in the text, his or her name and year of publication, e.g. " e = mc2 (Einstein 1905)". A reference section at the end of your work should then list all such references in alphabetical order of authors' surnames. (There are variations on this referencing system which your tutors may prefer you to use.) If you wish to quote a paragraph or so from published work then indent the quotation on both left and right margins, using an italic font where practicable, and introduce the quotation with an attribution.

Further information in relation to the existing London Metropolitan University regulations concerning plagiarism can be obtained from http://www.londonmet.ac.uk/academic-regulations

Coursework 2

In coursework 2 students are required to build upon the work done in the 1st coursework and develop a working prototype of an AI application using available tools and technologies. Students can use any programming language of their choice and can use open source libraries to develop the application.

**Students must continue with the topic selected in coursework 1 for this assessment.*

Submission needs to include:

- ***Application***
    - Developed application that runs (pre – compiled if required) including source code and any other required files
- ***Report with the following inclusion:***
    - Introduction
        - Explanation of the topic/AI concepts used
        - Explanation/introduction of the chosen problem domain/topic
    - Background
        - Research work done in coursework 1
    - Solution
        - Explanation of the solution/used AI algorithm
        - Pseudocode of the solution
        - Diagrammatical representations of the solution (flowcharts/state transition diagrams)
        - Explanation of the development process (with explanation of the used tools and technologies/libraries)
        - Achieved results (screenshots of the application/screenshots of the results attained)
    - Conclusion
        - Analysis of the work done
        - How the application/solution addresses real world problems
        - Further work
- ***Presentation with the following inclusion:***
    - Topic
        - Explanation of the AI concepts used
        - Research evidences
        - Reason for selection of the topic
    - Solution
        - Explanation of the solution and developed application (how it works)
        - Achieved results
        - How it solves real world problems?
    - Synthesis of information

- Pseudo code for the solution
- Diagrammatical representations of the solution (flowcharts/state transition diagrams)

Note:
The technicality of the project will be judged during the viva/presentation and marked accordingly. If any individual student is not able to justify his/her project, then the project will be kept under plagiarism.

Artificial Intelligence: CW2: Marking Scheme

University Grading Scheme for Undergraduate Programmes: 2019/20		
Marking criteria	Letter grade	Mark recorded
C1 – Work Showing Evidence: 1. *The introduction explains the topic perfectly and the problem domain has been discussed very clearly. An exceptional level of understanding of the topic material has been shown.* 2. *Exceptional research work has been done with proper explanations using proper sources and referencing. An exceptional level of understanding has been shown.* 3. *The solution/development process has been described perfectly using necessary diagrams and clear pseudocode. An exceptional level of understanding of the solution is displayed.* 4. *The developed application is flawless and works perfectly. Outstanding results have been achieved.* 5. *The report is well-structured, written in good English, free from spelling and grammatical errors and is written in a professional style of a technical article and presented at a high standard.* 6. *The student's performance in the VIVA was perfect in every respect.*	A+	95
C2 – Work Showing Evidence: 1. *The introduction explains the topic at an outstanding level and the problem domain has been discussed very clearly. An outstanding level of understanding of the topic material has been shown.*	A	85

2. *Outstanding research work has been done with proper explanations using proper sources and referencing. An outstanding level of understanding has been shown.* 3. *The solution/development process has been described perfectly using necessary diagrams and clear pseudocode. An outstanding level of understanding of the solution is displayed.* 4. *The developed application is flawless and works perfectly. Excellent results have been achieved.* 5. *The report is well structured, written well, and free from spelling and grammatical errors and is written at a very good quality standard.* 6. *In the viva the student showed a level of understanding and insight very much beyond what is expected at this level.*		
C3 – Work Showing Evidence: 1. *The introduction explains the topic at an excellent level and the problem domain has been discussed clearly. An excellent level of understanding of the topic material has been shown.* 2. *Excellent research work has been done with proper explanations using proper sources and referencing. An excellent level of understanding has been shown.* 3. *The solution/development has been described perfectly using necessary diagrams and clear pseudocode. An excellent level of understanding of the solution is displayed.* 4. *The developed application is flawless and works perfectly. Very good results have been achieved.* 5. *The report has a good structure, written well, free from spelling and grammatical errors and is at a good quality standard.* 6. *In the viva the student showed a level of understanding and insight beyond what is expected at this level.*	A-	75
C4 – Work Showing Evidence: 1. *The introduction explains the topic at a very good level and the problem domain has been discussed well. A very good level of understanding of the topic material has been shown.* 2. *Very good research work has been done with*	B+	67

suitable explanations using proper sources and referencing. A very good level of understanding has been shown. 3. *The solution/development process has been described well using necessary diagrams and clear pseudocode. A very good level of understanding of the solution is displayed.* 4. *The developed application is very good and works well. Very good results have been achieved.* 5. *The report is a structured one, written reasonably well but may contain only minor typos and grammatical errors but on the whole is a good report.* 6. *In the viva the student displayed a better than average level of understanding. The student was able to answer most questions clearly and with insight.*		
C5 – Work Showing Evidence: 1. *The introduction explains the topic at a good level and the problem domain has been discussed fairly well. A good level of understanding of the topic material has been shown.* 2. *Good research work has been done with suitable explanations using proper sources and referencing. A good level of understanding has been shown.* 3. *The solution/development process has been described well using necessary diagrams and clear pseudocode. A good level of understanding of the solution is displayed.* 4. *The developed application is good and works well. Good results have been achieved.* 5. *The report is written well but may contain some spelling and grammatical mistakes but on the whole is a reasonable report.* 6. *In the viva the student displayed a level of understanding which is about what would be expected.*	B	63
C6 – Work Showing Evidence: 1. *The introduction explains the topic at a reasonable level and the problem domain has been discussed fairly well. A reasonable level of understanding of the topic material has been shown.*	C+	57

2. *Research work has been done at a reasonable level with suitable explanations using proper sources and referencing. A reasonable level of understanding has been shown.* 3. *The solution/development process has been described fairly well using necessary diagrams and pseudocode. A reasonable level of understanding of the solution is displayed.* 4. *The developed application is good but with minor errors. The results achieved are satisfactory.* 5. *The report is written with a satisfactory standard that may contain spelling and grammatical errors.* 6. *In the viva the student displayed a level of understanding which is considered to be the minimum acceptable at this level. The student was able to answer some questions.*		
C7 – Work Showing Evidence: 1. *The introduction explains the topic at a satisfactory level and the problem domain has been discussed reasonably. A satisfactory level of understanding of the topic material has been shown.* 2. *Research work has been done at a reasonable level with suitable explanations using proper sources and referencing. A satisfactory level of understanding has been shown.* 3. *The solution/development process has been described at a satisfactory level using necessary diagrams and pseudocode. A satisfactory level of understanding of the solution is displayed.* 4. *The developed application is good but with minor errors and shortcomings. The results achieved are satisfactory.* 5. *The report is written at a satisfactory level that contains spelling and grammatical errors.* 6. *In the viva the student displayed a level of understanding which is considered to be the minimum acceptable at this level. The student was able to answer some questions.*	C	53
C8 – Work Showing Evidence: 1. *The introduction explains the topic only at a basic level and the problem domain has been discussed only at a basic minimum level. Only a basic level of*	D+	47

understanding of the topic material has been shown. 2. *Research work has been done at only a basic level with short explanations. Only a basic level of understanding has been shown.* 3. *The solution/development process has been described at only a basic level using necessary diagrams and pseudocode. Only a basic level of understanding of the solution is displayed.* 4. *The developed application is acceptable but with errors and shortcomings. The results achieved are at a minimum acceptable level.* 5. *The report is written at a satisfactory level, which may lack structure and/or contain spelling and grammatical errors.* 6. *In the viva the student showed a little understanding and was only able to answer the most basic questions.*		
C9 – Work Showing Evidence: 1. *The introduction explains the topic at a very basic level and the problem domain has been discussed only at a basic minimum level. A very basic level of understanding of the topic material has been shown.* 2. *Research work has been done only at a basic level with short. A very basic level of understanding has been shown.* 3. *The solution/development has been described only at a very basic level using diagrams and pseudocode. A very basic level of understanding of the solution is displayed.* 4. *The developed application is at a minimum acceptable level with errors and shortcomings. The results achieved are at a minimum acceptable level.* 5. *The report lacks structure and/or contains spelling and grammatical errors but on the whole just reaches a minimum acceptable level.* 6. *In the viva the student showed a little understanding and was only able to answer only the most basic questions.*	D	43
C10 – Work Showing Evidence: 1. *The introduction does not explain the topic even at*		

a basic level and the problem domain has been discussed very weakly. A weak level of understanding of the topic material has been shown. 2. *Evidence of research work is poor. A weak level of understanding has been shown.* 3. *The solution/development process has not been described properly and is unclear. A poor level of understanding of the solution is displayed.* 4. *The developed application is not at an acceptable level. The results achieved are poor.* 5. *The report lacks structure presented poorly and contains spelling and grammatical errors, which on the whole is at an unacceptable standard.* 6. *In the viva the student showed almost no understanding of the technical content of the project and was unable to answer even the most basic questions.*	F1	37
C11 – Work Showing Evidence: 1. *The introduction does not explain the topic even at a basic level and the problem domain has been discussed very weakly. A very weak level of understanding of the topic material has been shown.* 2. *Evidence of research work is very poor. A very weak level of understanding has been shown.* 3. *The solution/development process has not been described properly and is unclear. A very poor level of understanding of the solution is displayed.* 4. *The developed application is not at an acceptable level. The results achieved are very poor.* 5. *The report is very poorly presented with no level of structure and cohesion, which contains spelling, and grammatical errors that make it considerably lower than just an acceptable technical report expected at this level.* 6. *In the viva the student showed almost no understanding of the technical content of the project and was unable to answer even the most basic questions.*	F2	23
Fail (non-submission or submission of work which cannot		

be given any credit (e.g., blank submission, incorrect assignment)	F3	0

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