A logo for college computing

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**Assessment Cover Page**

|  |  |
| --- | --- |
| *Student Full Name* | Isabella Gubitoso |
| *Student Number* | sba25155 |
| *Module Title* | Machine learning |
| *Assessment Title* |  |
| *Lecturer/Supervisor* |  |
| *Assessment Due Date* | 25/11/2025 |
| *Date of Submission* |  |

**Use of AI Tools**

I have not used any AI tools or technologies in the preparation of this assessment.

**Declaration**

By submitting this assessment, I confirm that I have read the CCT policy on academic misconduct and understand the implications of submitting work that is not my own or does not appropriately reference material taken from a third party or other source.

I declare it to be my own work and that all material from third parties has been appropriately referenced.

I further confirm that this work has not previously been submitted for assessment by myself or someone else in CCT College Dublin or any other higher education institution.

**Please read all the instructions on this document carefully!!!**

**Filling out the cover sheet**

Fill out the top section of the cover page with all the required information.

In the "Use of AI" section, choose the statement that accurately reflects your work:

**If you utilized AI**: select the first statement. Provide details about the AI tool used and its application. Delete the second statement.

Example: "I acknowledge the use of Grammarly for improving spelling and grammar."

OR: "I acknowledge the use of ChatGPT for structuring the assignment."

Additionally, if you have used AI-generated content to inform a particular section of an assignment, you should cite its use as though you are referencing any other resource such as a journal article or book. You should then provide an appendix that shows the prompt you used, and text generated by the AI tool as evidence.

Information on how to reference AI tools is available in the Harvard Referencing Handbook, which can be downloaded at: https://library.cct.ie/referencing/harvard

**If you did not use AI tools**: delete the first statement and keep the second one.

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* **Version Control**

**Enabling Version Control in Microsoft Word:**

Version control in Microsoft Word can be achieved in a few ways. Here’s how to do it:

**1. Using Track Changes:**

* **Track Changes** is a built-in feature of Word that helps users monitor edits.

To enable:

* + Go to the **Review** tab.
  + Click **Track Changes**
  + Word will start recording changes and can show who made each edit.
  + Select **No Markup** from the drop-down menu.

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**2. Using Microsoft OneDrive or SharePoint:**

* Save Word documents to **OneDrive** or **SharePoint** to automatically enable version history.
  + Go to **File** > **Save As** > **OneDrive** or **SharePoint**.
  + In OneDrive or SharePoint, right-click the document, and select **Version History** to view or restore previous versions.

**3. Saving files manually:**

* Users can create manual versions by saving files with date or version numbers in the filename, like Document\_v1, Document\_v2, etc.
* This method requires consistent discipline and a well-maintained naming system.

Proper file naming is critical for version control. To efficiently track different versions of a document, file names should include essential details such as:

* **Student number**
* **Assignment**
* **Module title**
* **Version Number**

**For example: 2024998\_CA1\_** **Data Visualisation & Communication\_v1**

By adhering to a consistent file-naming convention, it's easier to identify and retrieve specific versions of a file, avoid confusion, and ensure efficient collaboration across multiple contributors.

**Ensure that any content written in red is removed from the document before submission.**

Abstract

[NOTE: This section is designated for the abstract. Abstracts are not assigned page numbers and should precede the table of contents. If an abstract is unnecessary for your work, please delete this page.]

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[References 2](#_heading=h.2et92p0)

[NOTE: The table of contents above has been included for your convenience. To refresh the table, simply click on it, then select 'Update Table' using the mouse. You can choose to update either the page numbers exclusively or the entire table as needed.]

# Introduction

The online art market has experienced significant growthin recent years, with e-commerce platforms become essentials channels for buying and selling artwork. The motivation behind this choice stems from growing digital art marketplace and the challenge sellers face in pricing their artworks competitively.

This project addresses this challenge by developing machine learning models to predict artwork price categories based on key features. The models classify artworks into three categories : low, medium and high price ranges. This classification approach is valuable because it helps sellers position their products in the right market segment and helps buyers identify artworks within their budget range.

The main objective of this study is to apply machine learning models, specifically Random Forest and Support Vector Machines. These models were chosen because they handle categorical data well and can capture complex, not linear relationships between features, which is appropriate given art pricing likely doesn’t follow simple linear patterns,

The dataset contains 2500 artworks from an e-commerce platform, with 18 features describing each artwork’s characteristics, including features like the paiter’s name, artistic style and mood, alongside objective factors like size and medium.

# Chapter 1

## Chapter 1.1

### Chapter 1.1.1.

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[NOTE: For the table of contents to function properly, you must use the correct headings for all your chapters and subchapters.

**Heading 1:** This is the main heading and should be employed for the primary title or chapter. For example: CHAPTER 1.

**Heading 2:** Use Heading 2 as a subheading. For instance: Chapter 1.1.

**Heading 3:** Heading 3 provides a more detailed breakdown, such as Chapter 1.1.1.

By adhering to this hierarchical structure, you ensure an organized and effective document outline, enhancing readability and navigation. However, you are not forced to use all 3 headings, usually heading 1 and 2 are sufficient.

The remainder of your text should be written using a normal font.]

# References

Please list all the references you have used in your assignment alphabetically and in the Harvard style. You can find information on how to correctly reference in Harvard at this link: https://library.cct.ie/referencing/harvard

# Appendix

If you have used AI tools in your work, you must include screenshots of your requests in the appendix.

The appendix serves as a repository for additional or supplementary information that is deemed too extensive or detailed for integration into the main body of the text. This supplementary content can encompass data tables, charts, graphs, questionnaires, or any other supporting materials that contribute to a comprehensive understanding of the research.

If you haven't used AI tools and there's no need for supplementary data, you can remove the appendix section entirely.