

Name	CIS 2423 Final Group Project Rubric-202410					
Description						
Rubric Detail						
Levels of Achievement						
Criteria	Absent	Insufficient (1-59%) (F)	Emerging (60-69%) (D/D+/C-)	Satisfactory (70-76%) (C/C+)	Competent (77-86%) (B-/B/B+)	Mastering (87-100%) (A-/A)
<b>Deliverable 1: understanding of data analytics [CLO1] (10 Marks)</b>	<b>0 to 0 points</b>	<b>1 to 4.95 points</b> None of the following: <ul style="list-style-type: none"><li>Purpose of data analysis not mentioned.</li><li>Selection of programming language is not referenced.</li><li>Type of machine learning algorithm to be analyzed is not defined.</li><li>Variables for data analysis are not mentioned</li></ul>	<b>4.96 to 6.45 points</b> Some but not all the following: <ul style="list-style-type: none"><li>Purpose of data analysis mentioned but not clear.</li><li>Selection of programming language is referenced.</li><li>Required machine learning algorithm to be analyzed is ill-defined [Too many models mentioned].</li><li>Variables for data analysis are mentioned without justification</li></ul>	<b>6.46 to 6.8 points</b> Most but not all the following: <ul style="list-style-type: none"><li>Purpose of data analysis is clearly mentioned.</li><li>Selection of programming language is referenced.</li><li>Required machine learning algorithm to be analyzed is defined, but without justification.</li><li>Variables for data analysis are mentioned with justification but not clear</li></ul>	<b>6.81 to 8.3 points</b> All of the following: <ul style="list-style-type: none"><li>Purpose of data analysis is clearly mentioned.</li><li>Sound rationale for choosing the programming language.</li><li>Required machine learning algorithm to be analyzed is well-defined with appropriate justification.</li><li>Variables for data analysis are mentioned with clear justification</li></ul>	<b>8.31 to 10 points</b> All of the following: <ul style="list-style-type: none"><li>Purpose of data analysis is clearly mentioned with appropriate explanation.</li><li>Thoroughness of programming language chosen is evident.</li><li>Student synthesizes information about machine learning algorithm from multiple disciplines and sources and presents them with clarity.</li><li>Variables for data analysis are precisely defined with appropriate justification</li></ul>

## Levels of Achievement

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<b>Deliverable 2: Apply data analysis and visualization techniques [CLO2] (10 Marks)</b>	<b>0 to 0 points</b>  None of the following: <ul style="list-style-type: none"><li>No evidence of justification to perform descriptive statistics •</li><li>Function is not created for descriptive statistics •</li><li>Sampling techniques are not designed •</li><li>Exploratory analysis are not performed •</li><li>Hypothesis tastings are not achieved • Data preprocessing is not devised •</li><li>Regression models are not functioned •</li><li>Optimization for regression model is not operated • Best fit model is not enacted</li></ul>	<b>1 to 4.95 points</b>  Some but not all of the following: <ul style="list-style-type: none"><li>Evidence of justification to perform descriptive statistics exist but not clear •</li><li>Function is created for descriptive statistics having major syntactical errors. •</li><li>Sampling techniques are designed but not appropriate •</li><li>Exploratory analysis are performed but ill-designed •</li><li>Hypothesis tastings are achieved with flaw • Evidence for data preprocessing exist but with inappropriate techniques stylizing</li></ul>	<b>4.96 to 6.45 points</b>  Some but not all of the following: <ul style="list-style-type: none"><li>Evidence of justification to perform descriptive statistics exist and clear •</li><li>Function is created for descriptive statistics having minor syntactical errors. •</li><li>Sampling techniques are designed •</li><li>Exploratory analysis are performed with minor error •</li><li>Hypothesis tastings are achieved with flaw • Evidence for data preprocessing exist but with minor error</li></ul>	<b>6.46 to 6.8 points</b>  Most but not all of the following: <ul style="list-style-type: none"><li>Evidence of justification to perform descriptive statistics exist with clear elucidation •</li><li>Function is created for descriptive statistics without flaws. • Sampling techniques are designed with appropriate rationalization •</li><li>Exploratory analysis are performed with appropriate legends •</li><li>Hypothesis tastings are achieved appropriate assumption •</li><li>Evidence for data preprocessing exist but with</li></ul>	<b>6.81 to 8.3 points</b>  All of the following: <ul style="list-style-type: none"><li>Appropriate description and exploratory analysis provided along with exemplary analysis • Sound rationale for chosen hypothesis testing and infer statically in commendable way • Other regression model are handled obtained from different sources • Rigor is evident.</li></ul>	<b>8.31 to 10 points</b>

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<b>Deliverable 3: The data model created using classification and clustering algorithm of machine learning [CLO2, CLO3] (42 Marks)</b>	<b>0 to 0 points</b>	<b>1 to 16.95 points</b> <ul style="list-style-type: none"> <li>Incomplete classification models are presented.</li> <li>No optimization and recommendation are performed for classification model.</li> <li>No evidence of any cluster analysis.</li> <li>No strategies are produced from cluster model.</li> </ul>	<b>16.96 to 24.45 points</b> <p>Some but not all the following:</p> <ul style="list-style-type: none"> <li>Comprehensive classification models are presented but with significant errors.</li> <li>Thorough optimization and recommendation are performed for classification model but with poor validation.</li> <li>Evidence of cluster analysis exists with poor performance.</li> <li>Strategies are derived from cluster model which are insignificant.</li> </ul>	<b>24.46 to 28.8 points</b> <ul style="list-style-type: none"> <li>Most but not all the following:</li> <li>Comprehensive flawless classification models are presented.</li> <li>Thorough optimization and recommendation are performed with appropriate validation for classification model.</li> <li>Evidence of cluster analysis exists with better performance.</li> <li>Strategies are derived from cluster model which are significant but not consistent.</li> </ul>	<b>28.21 to 36.3 points</b> <ul style="list-style-type: none"> <li>All of the following:</li> <li>Implemented all classification models.</li> <li>Major validation works demonstrated on optimization and recommendation of classification model.</li> <li>Appropriate cluster analysis was performed and good strategies are postulated and well-documented.</li> </ul>	<b>36.31 to 42 points</b> <ul style="list-style-type: none"> <li>All of the following:</li> <li>All classification models are accurate.</li> <li>Perform more classification models from different sources.</li> <li>All cluster models are accurate.</li> <li>Perform more cluster models from different sources.</li> <li>Appropriate interpretation and recommendations are provided.</li> </ul>

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<b>Deliverable 4: Data Versioning [CLO 4] (26 Marks)</b>	<b>0 to 0 points</b>	<b>1 to 8.95 points</b> <ul style="list-style-type: none"> <li>• No evidence of creating a new repository and uploading project files to Git Hub</li> <li>• Git is not configured with Git Hub</li> <li>• No evidence for cloning Git hub repo to Git</li> <li>• Push and Pull are not performed</li> </ul>	<b>8.96 to 12.45 points</b> <p>Some but not all the following:</p> <ul style="list-style-type: none"> <li>• Repository model is created but files are not uploaded to repo</li> <li>• Git is not configured with Git Hub</li> <li>• Evidence of cloning exists with appropriate options</li> <li>• Push and Pull are performed which are insignificant</li> </ul>	<b>12.46 to 15.45 points</b> <p>Most but not all the following:</p> <ul style="list-style-type: none"> <li>• Repo are created and project files are uploaded to repo</li> <li>• Git configuration are performed with accordance of Git Hub</li> <li>• Evidence of cloning exists with proper options</li> <li>• Push and Pull are significant but not consistent</li> </ul>	<b>15.46 to 19.3 points</b> <p>All of the following:</p> <ul style="list-style-type: none"> <li>• Repo are created and project files are uploaded</li> <li>• Advanced configuration is performed on Git</li> <li>• Many functions related to cloning is performed apart from basic operations</li> <li>• Push and pull with different scenario are mentioned</li> </ul>	<b>19.31 to 26 points</b> <p>All of the following:</p> <ul style="list-style-type: none"> <li>• Scenario is created and explained about significance of repo creation</li> <li>• Advanced configuration is performed on Git</li> <li>• Different cloning techniques should be elucidated.</li> <li>• Push and pull with different scenario are mentioned</li> <li>• Branching should be exhibited</li> </ul>
<b>Written Communication and Video [12 Marks]</b>	<b>0 to 0 points</b>	<b>1 to 4.95 points</b> <ul style="list-style-type: none"> <li>• Ideas and evidence are disorganized, making relationships unclear</li> <li>• No transitions are used, or are used ineffectively</li> <li>• Conclusion,</li> </ul>	<b>4.96 to 6.45 points</b> <p>Some but not all of the following:</p> <ul style="list-style-type: none"> <li>• Ideas and evidence are sequenced to show relationships</li> <li>• Transitions connect ideas</li> <li>• Conclusion,</li> </ul>	<b>6.46 to 8.8 points</b> <p>Most but not all of the following:</p> <ul style="list-style-type: none"> <li>• Ideas and evidence are sequenced to show relationships</li> <li>• Transitions connect ideas</li> <li>• Conclusion,</li> </ul>	<b>8.81 to 10.3 points</b> <p>All of the following:</p> <ul style="list-style-type: none"> <li>• Ideas and evidence are logically sequenced to show relationships</li> <li>• Transitions connect ideas</li> <li>• Conclusion,</li> </ul>	<b>10.31 to 12 points</b> <p>All of the following:</p> <ul style="list-style-type: none"> <li>• Ideas and evidence are logically sequenced to show clear relationships</li> <li>• Transitions connect ideas</li> <li>• Transitions are varied and connect ideas,</li> </ul>

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	<p>when appropriate, is absent or restates the introduction or prompt • Student has an accumulation of errors in grammar, usage, and mechanics that distract or interfere with meaning • ERD is not organized, missing statement, contains errors, no comments • Video fulfills some of the project scope but with significant requirements missing</p>	<p>when appropriate, follows from and supports the controlling idea • Is free of distracting errors in grammar, usage, and mechanics • ERD is completed, organized with comments, and without errors • Video fulfills some significant requirements of the project scope</p>	<p>when appropriate, follows from and supports the controlling idea • Is free of distracting errors in grammar, usage, and mechanics • ERD is completed, organized with comments, and without errors • Video fulfills most significant requirements of the project scope</p>	<p>appropriate, follows from and supports the controlling idea • Is free of distracting errors in grammar, usage, and mechanics • ERD is completed, organized with comments, and without errors • Video fulfills all significant requirements of the project scope</p>	<p>showing clear relationships • Conclusion, when appropriate, is logical and raises important implications • Is free of distracting errors in grammar, usage, and mechanics • ERD is completed, organized with comments, and without errors • Video fulfills all significant requirements of the project scope</p>	<p>showing clear relationships • Conclusion, when appropriate, is logical and raises important implications • Is free of distracting errors in grammar, usage, and mechanics • ERD is completed, organized with comments, and without errors • Video completely fulfills or exceeds the project scope</p>

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