

## CDS 590 Consultancy Project & Practicum Report Outline

<b>Cover page, Declaration, Acknowledgement</b>
<b>Table of Contents</b>
<b>Abstract</b>  The whole project in miniature, and stand on its own. Should include: <ul style="list-style-type: none"> <li>• Practicum Experience</li> <li>• Problem statement</li> <li>• Objectives</li> <li>• DSA technique used in the project</li> <li>• Results</li> <li>• Main conclusion (lesson learned)</li> </ul>
<b>Introduction &amp; Related Works</b>  <ul style="list-style-type: none"> <li>• Background             <ul style="list-style-type: none"> <li>○ Practicum company</li> <li>○ Domain / context</li> </ul> </li> <li>• Problem statement – state the problems within the chosen domain / context</li> <li>• Objectives of project</li> <li>• Benefit of project</li> <li>• Review relevant /related works on             <ul style="list-style-type: none"> <li>○ Domain / context</li> <li>○ Data Science &amp; Analytics techniques</li> <li>○ Data Science &amp; Analytics tools</li> </ul> </li> </ul>
<b>Research Methodology</b>  <ul style="list-style-type: none"> <li>• Activities plan and gantt chart</li> <li>• Data science project lifecycle</li> <li>• What did you do during the practicum (analyse the problem)             <ul style="list-style-type: none"> <li>○ Initial questions</li> <li>○ Specific use case to be addressed</li> <li>○ Exploratory data analysis</li> <li>○ Final Analysis</li> </ul> </li> <li>• How did you do it (solving the problem using DSA techniques and tools)             <ul style="list-style-type: none"> <li>○ proposed solution(s)</li> </ul> </li> <li>• Justification on selected DSA technique and tools (e.g. what and why the specific DSA technique is chosen)</li> </ul>
<b>Results and Discussion</b>  <ul style="list-style-type: none"> <li>• Organise according to objectives of project</li> <li>• What have been achieved / not achieved (why)</li> </ul>

<ul style="list-style-type: none"><li>• Compare results from the project to related literature</li><li>• Challenges &amp; solutions</li><li>• Describe how the practicum experience help to apply what you have learned in class</li><li>• Describe your observation made during practicum related to professional and operational issues</li></ul>
<b>Conclusion &amp; Lesson Learned</b> <ul style="list-style-type: none"><li>• Main conclusion from practicum experience</li><li>• Describe any lesson learned from the experience</li><li>• Discuss any new opportunity that you would like to explore further</li><li>• Describe data science pipeline and theories used or not viewed as useful in the practicum</li><li>• Suggest how the practicum or your preparation for it might be improved</li><li>• Describe how the practicum experience integrated the student's coursework in the DSA program</li></ul>
<b>References</b> <ul style="list-style-type: none"><li>• List down all the references from books, journals, proceedings, websites, manual etc.</li><li>• Reference Style: APA.</li></ul>
<b>Appendices</b> <ul style="list-style-type: none"><li>• Log book, plan, relevent data sheet.</li></ul>