

## **Assignment 3**

### **(Group)**

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**Executive Summary (based on findings of part 1, 2 and 3)****Problem Statement:**

As a leading name in Aged care & Healthcare industry, The Cuida care is working for Digitalization of the company as they want to expand their business, As we have seen in previous reports made for Improvement of Company's IT sector by implementation of ideas such as application development. As Cuida care implemented digital platform to transform itself as a data hub. The Platform is being used to operate and manage registered customers & their queries and requests, analysing comments And collection of data about customer's purchasing behaviour and their experiences

In this report we are going through the research related data of customers of Cuida care & Franchisees which will give a better understanding of customers that can be used to improve service & efficiency and increasing customer loyalty

**Proposed Solution:**

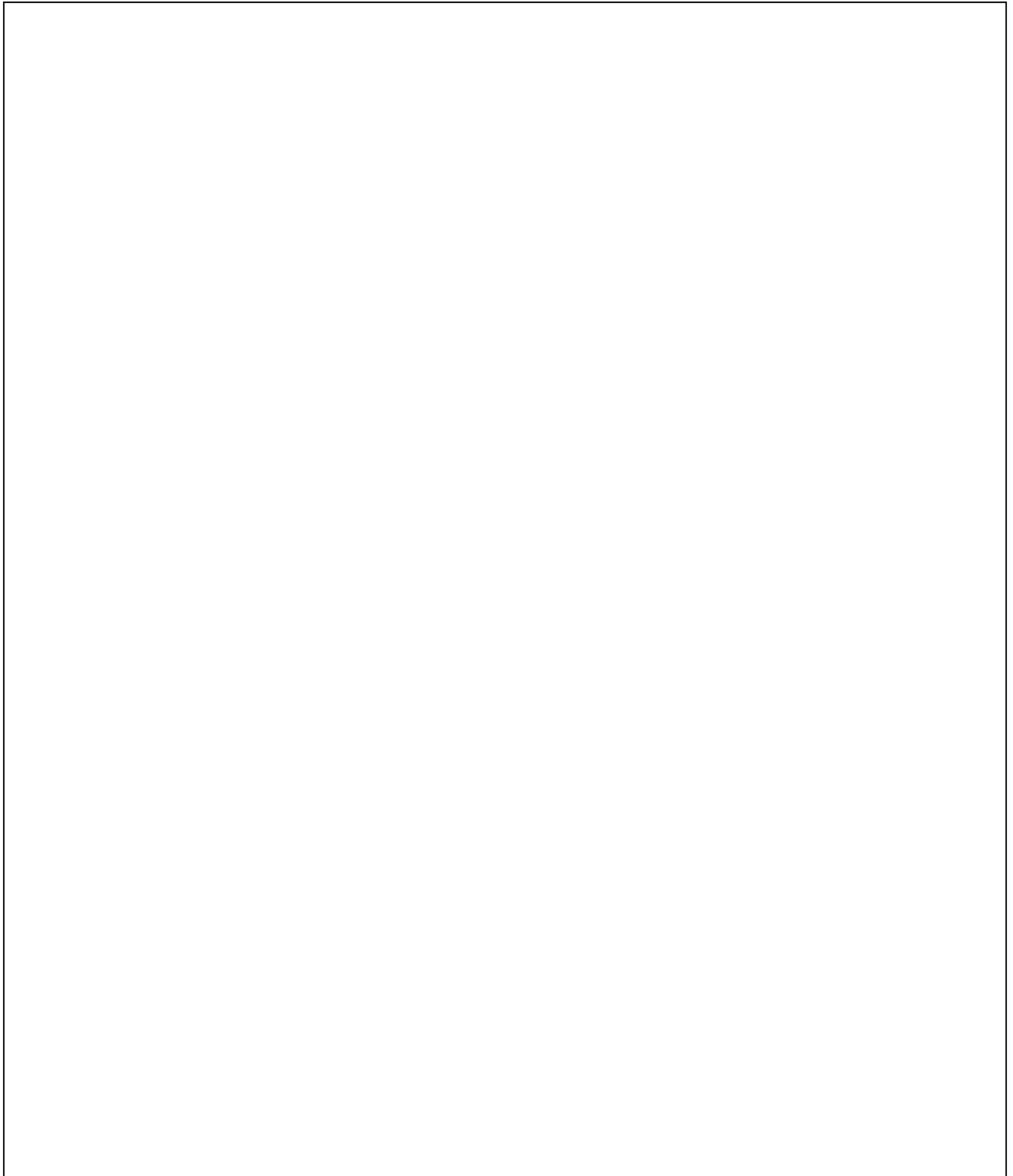
In this report, The data characteristics needed for the analysis of the customer's data have been taken into consideration and the solutions are given based on the possible benefits

In the first part, Our team has come up with three proposals for improvement and better understanding, Here solutions for the proposals are analysed along with their possible benefits These proposals focuses on understanding client's behaviour, queries and the feedback

In the later part, The Customer Relationship Management has been done, The CRM certainly works to improve Customer Service Quality, Maintain loyalty with customer by giving a better understanding and It does help in Marketing & Targeting of customers, But there are some basic issues as The Customer Data needs to be secure from third party access

But overall, The CRM has given the better level of knowledge from the customer data

For the last part, We have done the case study analysis based on customer stories, By analysing the situation, we got to know about possible threats and risks that may show up next time & by getting insights, These threats and risks could be avoided or minimized for newer customers for improvement of service, The case study analysis for user's stories have certainly given better insights on possible situation, With such insights gained from CRM Management and Analysis of Cases based on user's stories will certainly work to improve the business quality and opportunities available to the organization and the step taken by Cuida care for digitalization will certainly help the business to be competitive over the time.

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| Business Analytics Proposal  | Business Goal and Needs<br>(state a Problem /Opportunity to address)                         | Solution<br>(Analytics Model and expected analytics outcomes)  | Dataset Description and Source(s)<br>(data inputs to develop Solution)  | Value<br>(Benefits – Possibly Quantified)  |
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| <b>Understand the client who is purchasing the type of service offerings delivered by CuidaCare group.</b> | Understand the clients for more focused targeted marketing.                                  | <b>Analytics Model:</b><br>Descriptive Analytics<br>Predictive Analytics<br><br><b>Description:</b><br>Understand the client's profile purchasing the services and predict the target groups for efficient marketing.              | <ul style="list-style-type: none"> <li>• <b>Demographic Data</b><br/>Source: Age, gender, location</li> <li>• <b>Customer</b><br/>Source: Customer Profile</li> <li>• <b>Marketing Campaign</b><br/>Source: Location, target group, services offered</li> </ul> | <ul style="list-style-type: none"> <li>• Reduced cost in marketing campaigns by 25%</li> <li>• Increase in the number of clients by 30%, purchasing services from CuidaCare group.</li> <li>• Increase of social traffic by 40%</li> </ul> |
| <b>Analyse the multiple services requested by the client.</b>  | Identify the CuidaCare Franchisees who can deliver multiple services to a particular client. | <b>Analytics Model:</b><br>Clustering Analytics Model<br>Association Analysis:<br><br><b>Description:</b><br>Analyse patterns in the multiple services requested by each customer.<br>Identify and create better service packages. | <ul style="list-style-type: none"> <li>• <b>List of Services offered</b><br/>Source: Franchisee offering list of services, cost of services, location of Franchisee</li> <li>• <b>List of services requested</b></li> </ul>                                     | <ul style="list-style-type: none"> <li>• Reduced costs in delivering the services by 15%</li> <li>• Increase customer satisfaction by 20%</li> </ul>   |

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|  |  |  | <p>Source: Services requested by the client</p> <ul style="list-style-type: none"> <li>• <b>Demographic Data</b><br/>Source: Age, gender, location</li> <li>• <b>Customer</b><br/>Source: Customer Profile</li> </ul>   |  |
| <p><b>Improve performance of the company by understanding the feedback more efficiently.</b></p> | <p>Identify the gaps in the services delivered by analysing the customer feedback.</p> | <p><b>Analytics Models:</b><br/>Social Media Analytics<br/>Text Mining</p> <p><b>Description:</b><br/>Analyse the “customer’s opinion” based on the services they received. Analyse the reviews by using Text mining, for understanding the customer experiences and sentiments.</p> | <ul style="list-style-type: none"> <li>• <b>Demographic Data</b><br/>Source: Age, gender, location</li> <li>• <b>Customer</b><br/>Source: Customer Profile</li> <li>• <b>Customer Satisfaction</b><br/>Source: Surveys, Rating system, Recommendations, Testimonials</li> </ul> | <ul style="list-style-type: none"> <li>• Identify the potential customers.</li> <li>• Increase the customer experience by at least 80%</li> <li>• Improve the trust of the customers.</li> <li>• 10% of the customers have a concern regarding the price.</li> </ul> |

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| <b>Assumptions</b> (If applicable)    | <p><b>Proposal 1</b></p> <ul style="list-style-type: none"> <li>• We are assuming that the main concern of CuidaCare is to bring more clients to purchase services from the company.</li> <li>• CuidaCare is developing its marketing strategy around a limited budget.</li> <li>• It is assumed that the target marketing resulted in the reduction of marketing costs by 25%</li> <li>• The social traffic on the CuidaCare website has increased by 40% with new marketing strategy.</li> <li>• The number of clients purchasing services from CuidaCare has increased by 30% after the implementation of the new marketing strategy.</li> </ul> <p><b>Proposal 2</b></p> <ul style="list-style-type: none"> <li>• It is assumed that clients requesting multiple services had to go to different CuidaCare Franchisee to receive multiple services.</li> <li>• It is assumed that if one Franchisee provides combination of services to a particular client, it will reduce cost of delivering services by 15%</li> <li>• The customer satisfaction will increase by 20%</li> </ul> <p><b>Proposal 3</b></p> <ul style="list-style-type: none"> <li>• It is assumed that after filling the gaps in the services the customer experience increased by 80%.</li> </ul> <p>10% of the existing customers have concern regarding price of the service.</p> |
| <b>Justifications</b> (If applicable) | <p><b>Proposal 1</b></p> <ul style="list-style-type: none"> <li>• It is very important to study and understand the profile of the client purchasing the services from CuidaCare, by doing so, the company can target such people for marketing.</li> <li>• The age, gender and location are very crucial information of the client for target marketing. The company can focus on doing marketing campaigns in such areas and attract more clients to the company.</li> <li>• Target marketing will reduce marketing costs of the company by substantial percentage.</li> <li>• Descriptive Analytics is used to study the client profile and analyse which sectors to target for better marketing.</li> </ul> <p>Predictive Analytics is used to predict the locations and the sectors for target marketing which will lead to a greater number of clients in particular locations of CuidaCare Franchisees. It is also used to predict the increment of the social traffic on the CuidaCare website.</p>   |

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|                                      | <p><b>Proposal 2</b></p> <ul style="list-style-type: none"><li>• CuidaCare can analyse the services purchased together by one single client by using Clustering Analytics Model, by doing so it can provide all the multiple services to a particular client from one Franchisee location.</li><li>• Association Analysis can be used to identify those Franchisee who are qualified to deliver particular combination of services to a client.</li></ul> <p>This will reduce the cost of delivering services and also increase client satisfaction as the client will not have to go to different franchisee locations for multiple services.</p> |
| <b>Justification</b> (If applicable) | <p><b>Proposal 3</b></p> <ul style="list-style-type: none"><li>• By using Social Media Analytics, CuidaCare can identify the negative reviews and provide better services to that client.</li></ul> <p>Text mining can be used to analyse the gaps in the services and understand the customer opinion, the company can then improvise on those particular services and improve customer satisfaction.</p>   |

| A3.P2. User Stories                                   |  |                              |  |
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| Theme   | Epic   | Title                        | As a <User role>, (Who) I want to <action>, (What) So that <benefit>. (Why)  |
| <b>Customer relationship management and retention</b> | Identify and predict potential customer needs.                           | Caudia care group management | As a Cuida care group management, I want to know the services which are in demand and customer defection rate, so that I can analyse the business situation to take better and informed decisions for future to improve the performance of the company.            |
|   |  | Franchisee                   | As a Franchisee, I want to analyse the feedback by Cuida care management and the latest trends in services of each franchise, so that I can enhance my quality of services to offer to the customer to get a better feedback from the clients.                     |
|   | Identify the most profitable customers and services from the Caudia care | Marketing Managers           | As a Marketing manager, I want to create customer performance insights from social media and feedback data exploration, so that I can improve the future and real time marketing activities and plans for personalized services.                                   |
|   |  | customer service Manager     | As a customer service Manager, I want to evaluate and assess real-time customer behaviours, feedback, and ratings data towards Cuida care services, so that I can improve the quality of the customer interactions and address the real-time issue of the clients. |
| <b>Personalised services</b>                          | Predicting customer defection factor                                     | Franchisee                   | As a Franchisee, I want to view customer reviews and ratings on personalised services being offered, so that I can understand the personalised services offering and design the service packages according to the customer needs.                                  |
|   |  | Client                       | As an Individual client, I want to know personalized and related service offering, so that I can enjoy a perfect experience getting the best value for money.  |
| <b>Designing the</b>                                  | Integrate feedbacks and real-  | Data Analyst                 | As a Data analyst, I want to make meaningful dashboards from customer data, feedbacks, surveys and events as they happen, so that I can deliver these insights and report to different departments as and when required.   |



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| <b>Interactive dashboards</b> | time feedback from clients | Cuida care manager | As a Cuida care manager, I want to obtain the reports on customer demographics and services preferences through analytics dashboards so that I can ensure that the franchisees are equipped with the information and services to transform a lead into a high value client. |
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| <b>Assumptions</b> (If applicable)    | Assume that the title of each story corresponds to one of the Caudia care stakeholder. The stakeholders listed in the user story are assumed to be the end users of the proposed analytical solution. The behaviour of this solution may vary according to the functional requirements of each stakeholder. The solution directly or indirectly involves the use of business analytics and artificial intelligence technologies to improve the overall user experience.   |
| <b>Justifications</b> (If applicable) | This section provides an overview of <b>eight user stories</b> for the recommended business analysis solution for Caudia care. We recommend <b>proposal 3</b> for greater implementation. These user stories were built depending on the case studies provided and the analysis of the industry to analyse the specific requirements of the user and the results of this solution.<br>Three themes were introduced throughout the commercial objectives and the proposed solutions. These issues are divided into <b>four epics</b> . |
| <b>Justification</b> (If applicable)  |   |

**A3. P3.**

*Recall your user stories and then enter them against INVEST criteria (select 4 best developed user stories)*

| User story text   | INVEST notes (assessment, recommendation and justification)   |
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| <p><b>User Story 1: Marketing Manager</b>, to obtain facts and figures on customer population analysis and services offered inclination through web dashboard and ad-hoc basis CRM portal which ensure that the marketing associates are provided with the information equipped with an important lead that can be converted into any potential sale.<br/><b>Rated - 21</b></p> | <p><b>I:</b> A possible independent user story since the support requested by the marketing manager can be organized, outlined, and expanded separately due to the dependency not overlying with any other stories. Hence the manager can easily gain customer details from the web dashboard (backend system) to acquire qualified leads to convert them into high value sale. (3)</p>   |
|   | <p><b>N:</b> This story is Negotiable since it categorically explains the various system usability as described by the end user and the required transitions can be precipitated easily that can be constructed on high-powered classification of requirements. (3)</p>   |
|   | <p><b>V:</b> Yes, the selected user story provides Value, reason being it eases the approach to high quality information regarding prospect leads, which is why it increases the probability of the sale leading to increased revenue along with high quality customizable features according to the clients requirements. (4)</p>  |
|   | <p><b>E:</b> No, the user story would not be estimable, the reason is that it does not deliver expected measurements or attempts, time and money required to develop a system which can gain actionable insights established from valuable customer data. Therefore, it is difficult and unpredictable to state the exact information which is required by marketing manager from the user story that would help estimate the intricacy of the project. (3)</p> |
|   | <p><b>S:</b> No, the following user story is not small-scale which is why this cannot be scalable as the development stage will not be restricted to a sprint due to the time to obtain it and building models with data types, along ML algorithms and new releases would be on a greater scale. (4)</p>   |
|   | <p><b>T:</b> Yes, this user story is Testable, because as defined in in part 2 about the given, when, and then template (where Marketing manager can access to important data through analytics/ report dashboard). Hence, this will verify whether the story is working accurately according to the expectations of the end user. (4)</p>  |
| <p><b>User Story 2: Being Cuida's Client</b>, I can view its top-class medical care and services offered by them along with the previous customer's review and ratings through interactive web dashboards which can be easy to understand brands image, reputation, and reliability.</p>  | <p><b>I:</b> Yes, this is independent to user story since the services offered along with the ratings/ reviews received on the web dashboard can be built (developed), planned, designed, and deployed separately with the system capabilities being cumulative and repetitive. (5)</p>   |
|   | <p><b>N:</b> Yes, here the user story is Negotiable since it smooths the virtual connectivity between Cudia Care and their</p>  |

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| <p><b>Rated – 25</b></p>  | <p>clients. Hence, the user story is highly flexible to the changes made, considering various client's requirements. (4)</p> <p><b>V:</b> Here the user story provides a great value to Cudia Care management and their clients since the brand image is highly increased due to their visibility in following markets, helping them to gain new clients and improving overall growth and reputation of the brand leading to increased profits and customers. (5)</p> <p><b>E:</b> In this case, the user story is estimable, reason being it clearly communicates the development team regarding the overall size of the project along with the estimated time to complete the project and outlining the total investment cost which is required to complete the project keeping in mind the organizational risk &amp; compliance factors associated with it. (4)</p> <p><b>S:</b> <b>Yes</b>, the user story is small-scale here which will be more than enough to be developed and tested that can be scalable in the sprint. Hence, all the future developments and improvements can be according to the possible requirements/ capabilities helping all future projects to be well visible and achievable in the given time frame. (4)</p> <p><b>T:</b> <b>Yes</b>, the following user story is Testable because it not only satisfies the accepted criteria but also facilitates the verification processes. For ex. A client can go through all the services offered to understand the brands value and reputation. (3)</p> |
| <p><b>User Story 3:</b> Being a <b>data analyst</b>, it is possible to produce meaningful insights from vast customer data, interactions, surveys, and various events that happens on the daily basis using certain analytics tools so that numerous visualisations and insights can be sent to different departments of Cudia Care.</p> <p><b>Rated 19</b></p> | <p><b>I:</b> <b>No</b>, following user story won't be independent since the generated data needs to form insights from various credible sources which requires data cleaning and many different visualizations or data modelling to build valuable insights using Machine learning models. (2)</p> <p><b>N:</b> <b>Yes</b>, the user's story is negotiable in this case since the required features for the system must be flexible enough as per the analyst specification to adopt any high-powered changes. (3)</p> <p><b>V:</b> <b>Yes</b>, this user story does deliver value since all analytical solutions begin with implementing data insights and valuable information can be derived from different models and visualizations leading to improved decision making for all departments. (4)</p> <p><b>E:</b> <b>No</b>, it would be difficult for user story to estimate overall recommended solutions as implementing data driven solutions involves many steps such as data cleansing, advance analytics, hypothesis testing and deployments. Therefore, the complexity of these steps might not be estimated accurately until and unless we test different models to match algorithms with test and trial hypothesis formed at different steps. (3)</p> <p><b>S:</b> <b>Yes</b>, in this case, the user story is small-scale because we can consider releasing of the analytical model to build a</p>   |

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|   | framework in it that can be used in many different labels and data types. (4)  |
|   | <b>T: Yes</b> , the user story in this case is testable since the data analytics team can test with trial and error methodology to understand the intricacies involved in system functionality by assigning certain attributes with cleaned data set to see if the built model performs correctly as intended outcome. (3)   |
| <b>User Story 4:</b> As Cudia Care <b>group management</b> , it is very crucial to figure out which is the most profitable services offered by them to different customer segments in numerous demographics along with the client's churn rate, this will result in monitoring current business situation to form better business decisions that will make preferable future investments.<br><br><b>Rating - 20</b> | <b>I: No</b> , this user story is not independent in this case because to gain insights on overall profit-making services and clients churn rate, we would require depth analysis of all client's choices from different demographics along with their processes and transactional data. (2)   |
|   | <b>N: Yes</b> , in this case, the user story is Negotiable as this understandably communicates the system functionalities which is described by the end users. (4)   |
|   | <b>V: Yes</b> , the user story provides a great value to the group management of Cudia Care in the form of useful insights and information because of which the end users will be able to make improved decisions for future roadmap and investments. (4)  |
|   | <b>E: Yes</b> , the user story is estimable in the given case since the developers can designate required timescales in which all testing functionalities can be correctly measured keeping in mind the estimated time and cost as time constraint plays very crucial role for data collection and representation. (4)   |
|   | <b>S: Yes</b> , the user story is small scale as developing a high-performance based system can be achievable by considering the overall allotted time. (5)  |
|   | <b>T: No</b> , the user story at this stage would not be testable since it requires a depth analysis of all data entries received in the system and the collected data would have many missing values and scattered data points. Therefore, the factors obtaining the rate of attrition (customers stop doing business) need to be reasonable to ensure the reliability. (1) |
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| <b>Assumptions</b> (If applicable)    | <b>User story 1</b> – The story is independent, whilst there can be substantial amount of work which needs to be worked on such as sourcing the right information, cleansing the data, building models that could be used to visualize insights to the marketing manager.   |
| <b>Justifications</b> (If applicable) | <b>User story 1:</b><br>The rating given to independent is 3, which signifies that the story is not strong enough to be called independent or self-sufficient.<br><u>Estimable Rating</u> is 3 because the user story is unresolved and the estimated time of when the project would be implemented is undefined. Although, some estimations from the previous project or research work |

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|                                      | <p>can be put into consideration on related projects which are completed by other companies.</p> <p><b><u>User Story 2:</u></b><br/> Testable part rating is given as 3, since the functional requirements are described well, and the non-functional requirements need to be taken into account by measuring the experience of the client which can be difficult to predict on smart devices or web dashboard.</p>   |
| <b>Justification</b> (If applicable) | <p>User story 2 is given the highest rating of 25 which suggests that this user story stands apart from most of the independent user stories because it does not have any dependencies on any other user story. Therefore, it provides higher value to Cudia Care clients and its development phase is also estimable comparing its size, effort and cost which can be tested easily.</p> <p>Remaining User stories have more particular functioning demand which requires a lot of integrations and its communication between all systems needs combined efforts in data sourcing, modelling and visualizations to produce higher value to Cudia Care for making better business decisions through data analytics. Although, these processes can be easily scalable but requires complex analysis of built models and hypothesis in the development stage once it's been deployed.</p> |