**# A.1 MINOR PROJECT: CREDIT CalC**

After going through this project work, we will be able to

* Learn how real-world applications are developed using c++ programming , and
* Develop menu-driven applications.

**A1.1 Credit CalC**

Credit CalC is a command- driven banking application that helps determine the credit worthiness of a loan applicant. The application takes into account various factors that could affect the loan repayment capability of the application in future. Some of keys factors taken into consideration are:

* Applicant’s age
* Monthly Salary
* Current liabilities, such as existing loan EMI’s
* Bank transaction details
* Accommodation status, i.e , owned house or rented
* Spouse’s employment status
* Whether the parents are dependent or not
* Company tier

After analyzing the above factors, the **Credit CalC** application calculates a credit score and rates the applicant as high risk, average risk or low risk customer. Accordingly, a decision is taken to grant or deny credit or loan to the applicant.

**Table A.1** Some Key coding Elements:

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| --- | --- |
| Element | Description |
| applicant  get\_data() | This class is used to store and process loan applicant’s details.  This applicant class function is used to receive and store loan applicant’s details. |
| calc\_liability()  display\_score() | This applicant class function is used to access the loan applicant’s current liabilities and calculate a credit score.  This applicant class function is used to display the credit score and rate the applicant as high risk, average risk or low risk customer. |

**Table A.2** Depicts the logic used by the Credit CalC application for calculating the credit score:

Table A.2 Application logic:

|  |  |
| --- | --- |
| Score | Logic |
| Initial stage | * At the start of the application, the score is the initialized to zero. |
| Applicant’s age | * If the age of the applicant’s lies between 22 and 30, the score is increment by 2. * If the age lies between 30 and 35, the score is incremented by 1. * If the age is above 35, the score is decremented by 1. |
| Applicant’s liabilities | * If the sum of home loam and personal loan EMIs is less than one fourth of the monthly salary, then then the score is incremented by 5 * If the sum is above 1/4th of the monthly salary but less than its 1/3rd , then the score is incremented by 3. * If the sum is above 1/3rd of the monthly salary, but less than its half, then the score is incremented by 1. * If the sum is greater than half of the monthly salary, then the score is decremented by 1. |
| Number of cheque bounce | * If the number of cheque bounces in the last six months is gret |
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