**ACADEMIC YEAR 2020-21 EVEN SEM**

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| Department | Information Technology |
| Subject | Mini Project - TE SEM VI |

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| Group No. | 12 |

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| Project Title | Predicting Heart Disease using Machine Learning |
| Type | machine learning and data mining |

**Students Details:**

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| **Sr. No.** | **Name of the Student** | **Correspondence Address** | **Email Id** | **Contact No.** | |
| **Resi.** | **Mobile** |
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| Instructor/Guide | Prof .Poonam B. Lad |

Project Coordinator Head of Dept.

**Minutes of Project Meeting**

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| **Project Work Progress Report** | | **Week No** | **Start Date** | | **End Date** | |
| **16** | **1-1-21** | | **7-1-21** | |
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| **Tasks Completed:** we have collected dataset from from cleveland database from UCI machine | | | | | | |
| learning repository to build our model .also done with creating environmental setup | | | | | | |
| using miniconda. | | | | | | |
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| **Tasks Remaining:** to choose important features from total database to study specifically | | | | | | |
| the target value | | | | | | |
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| Remarks by Instructor about Progress in the Week | | | | | | |
| * Excellent | * Good | | | * Satisfactory | | * Not Satisfactory |
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| **Next Week Plan:** to create data dictionary of features which we are going to select so | | | | | | |
| as to define them and preparing tools to do experimentation on the selected features from | | | | | | |
| the dataset | | | | | | |
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| **Group Code :**12 **Date : Signature of Guide** | | | | | | |

**Minutes of Project Meeting**

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| **Project Work Progress Report** | | **Week No** | **Start Date** | | **End Date** | |
| **17** | **7-1-21** | | **8-1-21** | |
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| **Tasks Completed:** we have collected important features from cleveland database from UCI machine | | | | | | |
| learning repository to build our model .also done with creating environmental setup | | | | | | |
| using miniconda. | | | | | | |
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| **Tasks Remaining:** we have to exploit our data set for further knowledge about data | | | | | | |
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| Remarks by Instructor about Progress in the Week | | | | | | |
| * Excellent | * Good | | | * Satisfactory | | * Not Satisfactory |
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| **Next Week Plan:** to create data dictionary of features which we are going to select so | | | | | | |
| as to define them and preparing tools to do experimentation on the selected features from | | | | | | |
| the dataset | | | | | | |
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| **Group Code :** 12 **Date : Signature of Guide** | | | | | | |

**Minutes of Project Meeting**

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| **Project Work Progress Report** | | **Week No** | **Start Date** | | **End Date** | |
| **18** | **15-1-21** | | **22-1-21** | |
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| **Tasks Completed:**  we explored our dataset and gathered various information about data set like no. of male and female patient, patient with chest pain or not and age comparision. | | | | | | |
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| **Tasks Remaining:** To build machine learning model and work on different machine learning model. | | | | | | |
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| Remarks by Instructor about Progress in the Week | | | | | | |
| * Excellent | * Good | | | * Satisfactory | | * Not Satisfactory |
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| **Next Week Plan:**  discussion on various machine learning model which we are going to use in our project and also going to work on various features of data. | | | | | | |
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| **Group Code :** 12 **Date : Signature of Guide** | | | | | | |

**Minutes of Project Meeting**

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| **Project Work Progress Report** | | **Week No** | **Start Date** | | **End Date** | |
| **19** | **5-2-21** | | **12-2-21** | |
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| **Tasks Completed:** we created data dictionary for the selected dataset of our model so as to | | | | | | |
| define them properly, and we have started experimenting our dataset using libraries | | | | | | |
| pandas numpy and matplotlib | | | | | | |
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| **Tasks Remaining:** to explore dataset and to check how attributes are correlated and | | | | | | |
| how they affect target values | | | | | | |
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| Remarks by Instructor about Progress in the Week | | | | | | |
| * Excellent | * Good | | | * Satisfactory | | * Not Satisfactory |
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| **Next Week Plan:** after doing data exploration on dataset we will decide which | | | | | | |
| algorithms we are going to choose for building our model and also we will choose libraries | | | | | | |
| that we will support them | | | | | | |
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| **Group Code :**12 **Date : Signature of Guide** | | | | | | |

**Minutes of Project Meeting**

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| **Project Work Progress Report** | | **Week No** | **Start Date** | | **End Date** | |
| **20** | **12-2-21** | | **19-2-21** | |
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| **Tasks Completed:**  we discussed various machine learning algorithm with our guide and | | | | | | |
| With the help of our guide, we choose three ml model which is KNN, logistic regression and random forest. | | | | | | |
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| **Tasks Remaining:**  to work on these model and also going to fit and train our model with various method of scikit learn. | | | | | | |
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| Remarks by Instructor about Progress in the Week | | | | | | |
| * Excellent | * Good | | | * Satisfactory | | * Not Satisfactory |
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| **Next Week Plan:** we are going to learn about scikit learn and their methods which we are going to use in our project with the help of guide. | | | | | | |
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| **Group Code :** 12 **Date : Signature of Guide** | | | | | | |

**Minutes of Project Meeting**

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| **Project Work Progress Report** | | **Week No** | **Start Date** | | **End Date** | |
| **21** | **19-2-21** | | **26-2-21** | |
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| **Tasks Completed:**  we completed fitting our model and trained our model. We are using 20% of our data to test our model and 80% are going to training data set. We also discussed about cross - validation method | | | | | | |
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| **Tasks Remaining:**  we have to test and compare our machine learning model. And choose our best model among three which we are going to use in project. | | | | | | |
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| Remarks by Instructor about Progress in the Week | | | | | | |
| * Excellent | * Good | | | * Satisfactory | | * Not Satisfactory |
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| **Next Week Plan:** we are going to work on ppt and project book .we are also going to evaluate and test our ml model. | | | | | | |
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| **Group Code :** 12 **Date : Signature of Guide** | | | | | | |

**Minutes of Project Meeting**

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| **Project Work Progress Report** | | **Week No** | **Start Date** | | **End Date** | |
| **22** | **1-4-2021** | | **8-4-2021** | |
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| **Tasks Completed:**  till now, we have done with training and testing with our dataset | | | | | | |
| Now as per our proposed model we have started fitting model using three algorithms I.e. | | | | | | |
| Logistic Regression, K-Nearest Neighbors and RandomForest . | | | | | | |
| we discussed with our guide about current progress of our project and also done some | | | | | | |
| corrections in ppt | | | | | | |
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| **Tasks Remaining:** To compare models built by these algorithms for purpose Accuracy, | | | | | | |
| and then we are going to tune models with hyperparameter tunning And corss validation. | | | | | | |
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| Remarks by Instructor about Progress in the Week | | | | | | |
| * Excellent | * Good | | | * Satisfactory | | * Not Satisfactory |
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| **Next Week Plan:** | | | | | | |
| As per direction given by our guide we will start working on our project black book also, & | | | | | | |
| We are going to compare accuracies of prediction obtained in our experimentation | | | | | | |
| Of models which we are later going to evaluate. | | | | | | |
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| **Group Code :** 12 **Date : Signature of Guide** | | | | | | |

**Minutes of Project Meeting**

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| **Project Work Progress Report** | | **Week No** | **Start Date** | | **End Date** | |
| **23** | **7-4-2021** | | **14-4-2021** | |
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| **Tasks Completed:** | | | | | | |
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| **Tasks Remaining:** | | | | | | |
| . We sytill have to look at followingparameters such as | | | | | | |
| Hyperparameter tunning and confusion matrix, precision recall,cross validation and | | | | | | |
| Featuresandimportance**.** | | | | | | |
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| Remarks by Instructor about Progress in the Week | | | | | | |
| * Excellent | * Good | | | * Satisfactory | | * Not Satisfactory |
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| **Next Week Plan:** | | | | | | |
| As per given instruction by our guide we will start basic working of | | | | | | |
| Project ppt and blackbook. | | | | | | |
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| **Group Code :** 12 **Date : Signature of Guide** | | | | | | |

**Minutes of Project Meeting**

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| **Project Work Progress Report** | | **Week No** | **Start Date** | | **End Date** | |
| **24** | **4-4-2021** | | **10-4-2021** | |
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| **Tasks Completed:** | | | | | | |
| We have completed hyperparameter tunning , feature importance | | | | | | |
| and confusion matrix. | | | | | | |
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| **Tasks Remaining:** , | | | | | | |
| . Now we are going to use logistic regression and random forest | | | | | | |
| Classifier using this hyperparameter | | | | | | |
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| Remarks by Instructor about Progress in the Week | | | | | | |
| * Excellent | * Good | | | * Satisfactory | | * Not Satisfactory |
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| **Next Week Plan:** | | | | | | |
| Discussion with our guide on logistic regression, random forest use. | | | | | | |
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| **Group Code :** 12 **Date : Signature of Guide** | | | | | | |

**Minutes of Project Meeting**

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| **Project Work Progress Report** | | **Week No** | **Start Date** | | **End Date** | |
| **25** | **4-5-2021** | | **10-5-2021** | |
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| **Tasks Completed:**     |  | | --- | | till now, we have done with training and testing with our dataset | | Now as per our proposed model we have started fitting model using three algorithms I.e. | | Logistic Regression, K-Nearest Neighbors and RandomForest | | | | | | | |
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| **Tasks Remaining:** | | | | | | |
| |  | | --- | | To compare models built by these algorithms for purpose Accuracy, | | and then we are going to tune models with hyperparameter tunning And corss validation. | | | | | | | |
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| Remarks by Instructor about Progress in the Week | | | | | | |
| * Excellent | * Good | | | * Satisfactory | | * Not Satisfactory |
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| **Next Week Plan:** | | | | | | |
| |  | | --- | | We are going to compare accuracies of prediction obtained in our experimentation | | Of models which we are later going to evaluate. Also we have started with making of our | | Project Black book | | | | | | | |
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| |  | | --- | | **Group Code :** 12 **Date : Signature of Guide** | | | | | | | |

**Minutes of Project Meeting**

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| **Project Work Progress Report** | | **Week No** | **Start Date** | | **End Date** | |
| **26** | **10-5-2021** | | **17-5-2021** | |
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| **Tasks Completed:** | | | | | | |
| We have completed with our black book and semester 8 ppt work thoroughly also | | | | | | |
| Got our all project work approved by our guide | | | | | | |
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| **Tasks Remaining:** , | | | | | | |
| . To submit our project work and to upload it on github repository | | | | | | |
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| Remarks by Instructor about Progress in the Week | | | | | | |
| * Excellent | * Good | | | * Satisfactory | | * Not Satisfactory |
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| **Next Week Plan:** | | | | | | |
| To get prepared for final Project presenration and its viva . | | | | | | |
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| **Group Code :** 12 **Date : Signature of Guide** | | | | | | |