1) Screenshots in RapidMiner Lab (10 points)

* A screenshot of a computer

  Description automatically generatedScreenshot 1: A screenshot of the decision tree graph with date and time at Step 1.8 (5 points)
* A screenshot of a computer

  Description automatically generatedScreenshot 2: A screenshot of prediction results for the 19 observations with date and time in Step 2.2 (5 points)

2) Deliverables in R Lab (50 points)

* **Deliverable R1**: take a screenshot of your decision tree model with date and time (5 points).

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* A screenshot of a computer

  Description automatically generated**Deliverable R2**: take a screenshot of your decision tree graph with date and time and briefly describe it. Your description must include the root node, split nodes, and leaf nodes. (10 points: 5 points for your screenshot and 5 points for your description).

The root note of this decision tree is Petal\_width < 0.8 at the top of the tree. There is only one other split node (not including the root node), which is Petal\_width >= 1.8. The leaf nodes shown circled and are Setosa, Verginica, and Versicolor.

* A screenshot of a computer

  Description automatically generated**Deliverable R3**: after you apply the decision tree model to your prediction dataset, take a screenshot of the prediction result with date and time and briefly describe how the result help you determine the predicted class of each case. (10 points: 5 points for your screenshot and 5 points for your description).

Deliverable R3 description: For each row, the results show a confidence percentage of each species name. Where the highest confidence percentage is, is where I determine the prediction. For example, if we look at row 4, the confidence percentages are as follows: Setosa:0, Verginica: 0.09259259, and Versicolor: 0.90740741. Since Versicolor has the highest confidence percentage, we can conclude that Versicolor is the species name.

* A screenshot of a computer

  Description automatically generated**Deliverable R4**: take a screenshot of your decision tree model with date and time. Try to use the resources provided to understand its output (5 points).
* A screenshot of a computer

  Description automatically generated**Deliverable R5**: take a screenshot of your decision tree graph with date and time (5 points).
* A screenshot of a computer

  Description automatically generated**Deliverable R6**: after you apply the decision tree model to your prediction dataset, and take a screenshot of the prediction result with date and time (5 points).
* **Deliverable R7:** Choose one of the two decision tree models generated in R and compare it with the decision tree model generated in RapidMiner. Identify and discuss at least three differences between the two models. When discussing each difference, please include both R and RM. For example, "R does …, but RM does not …." (10 points).

I am going to be comparing the RM decision tree and R library party decision tree. One of the first major differences I noticed was the structure of the decision tree itself. The decision tree in RM had more split nodes and leaf nodes than the one in R. Another difference between the two was the predictions. RM found the following predictions (in count): Setosa-6, Versicolor-4, and Virginica-9. While R found (in count): Setosa-5, Versicolor-4, and Virginica-10. We could say that there is not a major difference between these numbers, so either model still works. Lastly, back to the decision tree, the two models used different root notes. RM used Petal\_width while R used Petal\_length. This could have led to the minor differences in the prediction results.