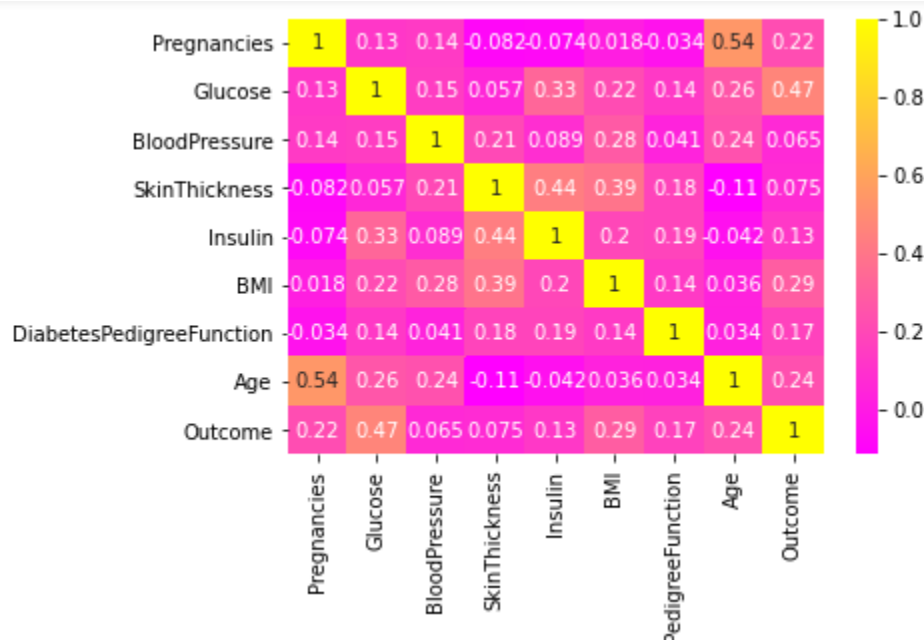


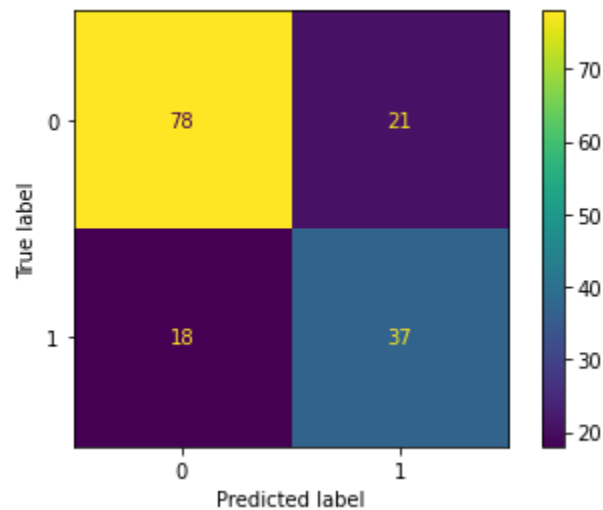
Question # 01 (A):

On the scale of 0 to 1, the two features have high value to the near 1 means they are highly correlated with each other. In below image on the diagonal all values are 1, which indicates the correlation of feature with itself. Age and Pregnancies have 0.54 means they are correlated with each other. On the contrary some features have negative values, which indicates weak correlation.

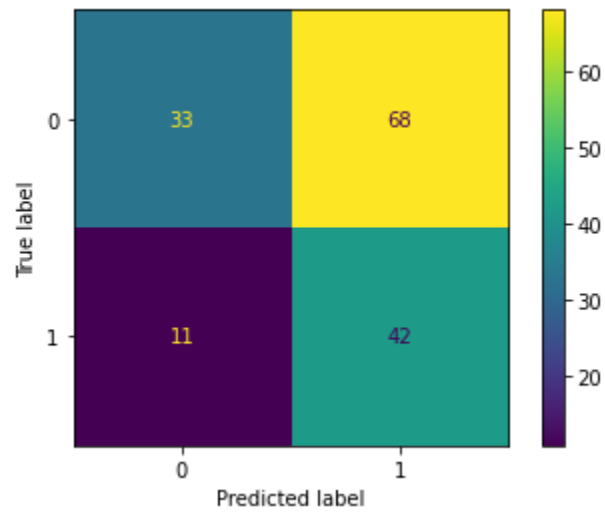


Question # 02 (A&B):

Confusion matrix for logistic regression using batch gradient descent.



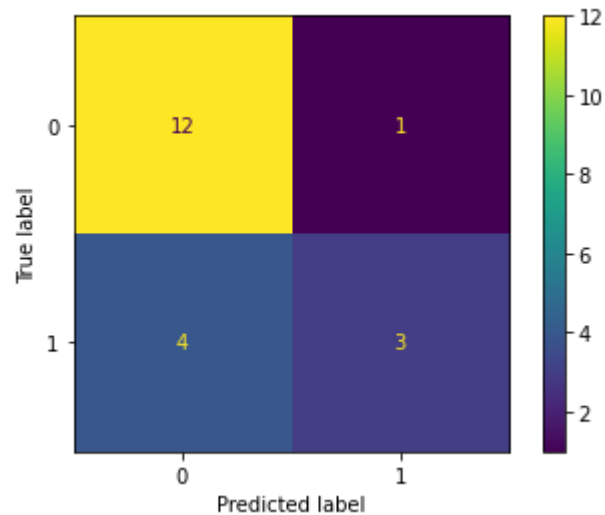
Confusion matrix for logistic regression using stochastic batch gradient descent.



The batch gradient descent algorithm is predicting values more accurately than stochastic batch gradient descent algorithm.

Question #02 (C):

Confusion matrix for logistic regression using K-fold cross validation.



Note: Question # 01 (c) is giving error of data type mapping, I tried to solve it but I did not get it. I never used python before, so this assignment seems to me hard, but I assure you for upcoming assignments good and quality work.