DATA ANALYTICS

ASSIGNMENT 2

PCA AND SVD ON IRIS DATASET

TEAM MEMBERS

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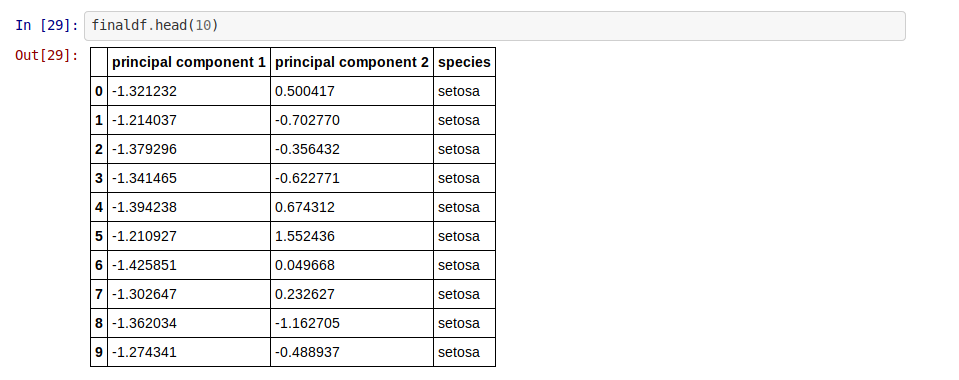
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**PCA**

**Principal component analysis (PCA) is a statistical procedure of dimensionality reduction that uses an orthogonal transformation to convert a set of observations of possibly correlated variables (entities each of which takes on various numerical values) into a set of values of linearly uncorrelated variables called principal components.**

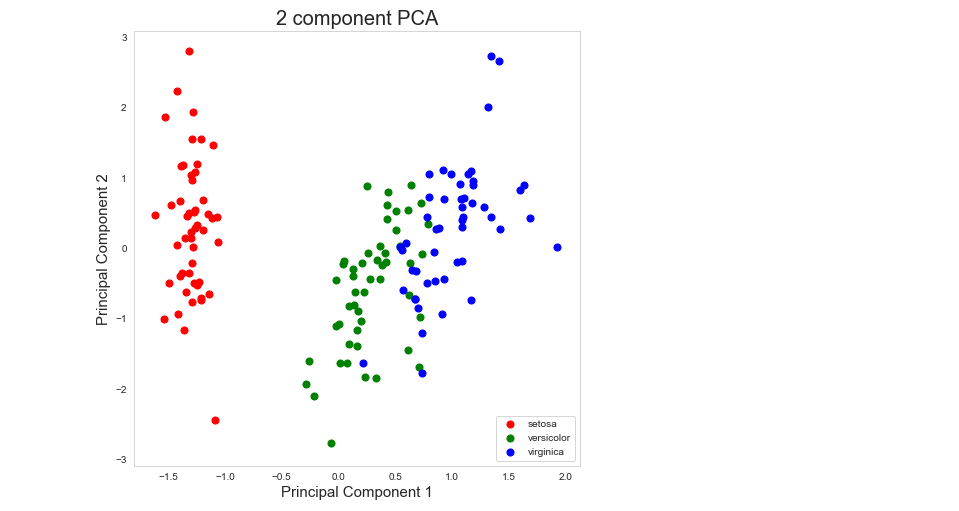
Importing modules and iris dataset

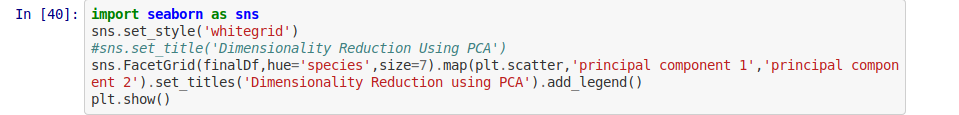
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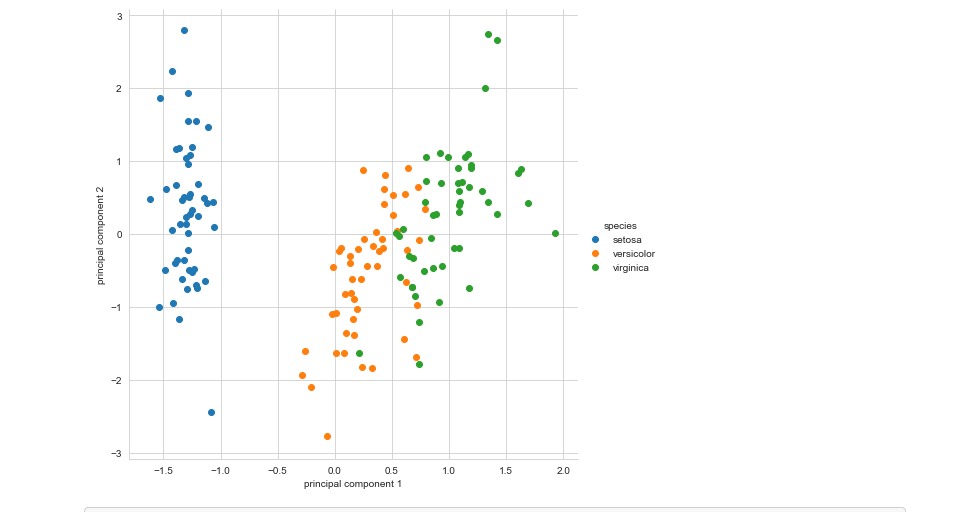
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**2 COMPONENT PCA**

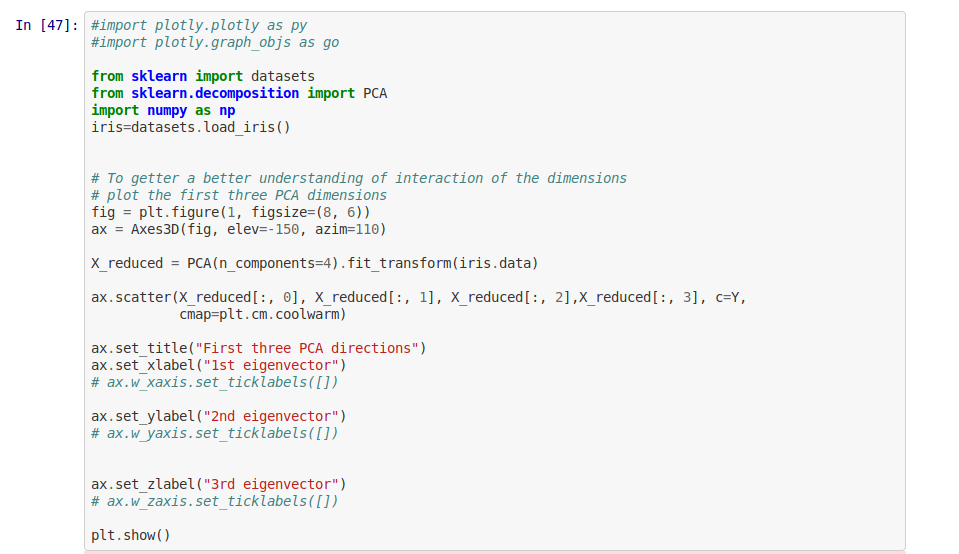
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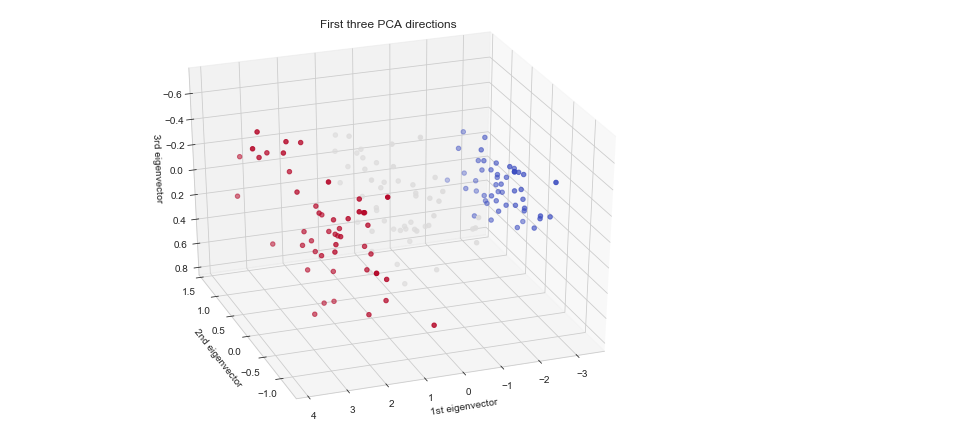
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**3 COMPONENT PCA**

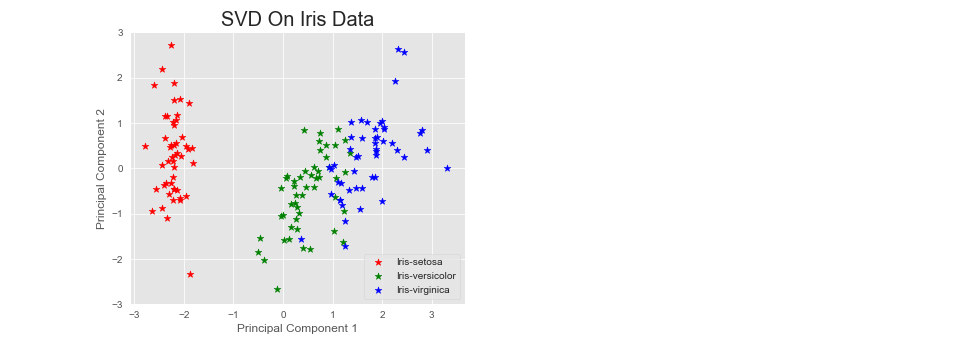
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**SVD**

**The singular value decomposition (SVD) is a factorization of a real or complex matrix. It is the generalization of the eigendecomposition of a positive semidefinite normal matrix (for example, a symmetric matrix with non-negative eigenvalues) to any matrix via an extension of the polar decomposition.**

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