**Applications of basic Linear Algebra**

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| **S. No** | **Operations** | **Real world Application** |  |
| 1 | Inner (dot) product |  |  |
| 2 | Orthogonal vector |  |  |
| 3 | Space spanning |  |  |
| 4 | Diagonal matrix |  |  |
| 5 | Matrix transpose |  |  |
| 6 | Determinants |  |  |
| 7 | Inverse matrix |  |  |
| 8 | Matrix Trace |  |  |
| 9 | Rank of Matrix |  |  |
| 10 | Eigenvalue and Eigenvectors |  |  |