# Exercise No: 5

**Data Visualization using R**

| Sr.No | App | Category | Rating | Reviews | Size(mb) |
|---|---|---|---|---|---|
| No1 | Flow Free | GAME | 4.3 | 1295625 | 11 |
| 2 | Zombie Catchers | GAME | 4.7 | 990796 | 75 |
| 3 | Gems or jewels ? | GAME | 3.7 | 171448 | 13 |
| 4 | Candy Crush Jelly Saga | GAME | 4.3 | 1300619 | 78 |
| 5 | Jewels Star: OZ adventure | GAME | 2.5 | 21892 | 14 |
| 6 | Hungry Shark Evolution | GAME | 4.5 | 6074627 | 100 |
| 7 | Pdf Book Download | BOOKS | 4.4 | 1322 | 3.5 |
| 8 | Free Book Reader | BOOKS | 3.4 | 1680 | 4 |
| 9 | eBoox new | BOOKS | 4.9 | 2739 | 21 |
| 10 | Golden Dictionary (EN-AR) | BOOKS | 4.4 | 51269 | 6.1 |
| 11 | All Language Translator Free | BOOKS | 3.4 | 30105 | 2.1 |
| 12 | Azpen eReader | BOOKS | 3.5 | 156 | 42 |
| 13 | ADP Mobile Solutions | BUSINESS | 1.3 | 85185 | 29 |
| 14 | OfficeSuite | BUSINESS | 4.3 | 1002861 | 35 |
| 15 | Job Search by ZipRecruiter | BUSINESS | 4.8 | 148945 | 25 |
| 16 | Google Primer | BUSINESS | 2.4 | 62272 | 18 |
| 17 | SuperLivePro | BUSINESS | 4.3 | 46353 | 21 |
| 18 | TED | EDUCATION | 3.6 | 181893 | 18 |
| 19 | English Communication | EDUCATION | 4.7 | 2544 | 18 |
| 20 | Khan Academy | EDUCATION | 4.6 | 85375 | 21 |
| 21 | Learn English with Wlingua | EDUCATION | 2.7 | 314299 | 3.3 |
| 22 | Princess Coloring Book | EDUCATION | 4.5 | 9770 | 39 |
| 23 | English Grammar Test | EDUCATION | 1.8 | 4075 | 5.1 |
| 24 | Speed Reading | EDUCATION | 4.6 | 10611 | 11 |
| 25 | English for beginners | EDUCATION | 2.6 | 9321 | 27 |

Consider above AppStore dataset and solve following problems:

1. Install package ggplot and import it
2. Draw pie chat for showing size require for different education application
3. Draw histogram for ratings of e-books apps with proper labeling.
4. Draw bar chart for showing app-wise rating with proper labeling.
5. Revel the relationship between rating and reviews of business apps
6. Draw bar char for showing category wise application count.
7. Find the frequency distribution of app category.
8. Draw bar graph of education app categories from AppStore dataset.
9. Find the relative frequency distribution of app categories.
10. Draw the scatter plot of reviews and rating given to education app. Does it revels the relationship between variables? If yes which type of relationship.
11. Find the cumulative frequency distribution of the rating in AppStore
12. Determine total number of applications having rating below 3.5.