

Latex Programs for Record

1. Program to demonstrate two column article

```
\documentclass[10pt,a4paper,two column]{article}
\author{Haritha D}
\title{Article with multicolumn}
\begin{document}
\maketitle
```

About L A TEX (pronounced either `\emph{"Lay-tech"}` or "Lah-tech") is a portable document formatting system based on TEX (`\textbf{pronounced "tech"}`), a typesetting language originally designed especially for math and science. It is also a programming language, which means you can create your own commands to simplify and customize it. TEX and L A TEX use by default a font family called "Computer Modern," which includes a variety of styles such as serif, sans serif, typewriter, and a particularly rich set of mathematical symbols.

```
%\begin center the text
```

```
\begin{center}
\underline{\textbf{Structure of a L A TEX File}}
\end{center}
```

```
%\textsc{} changes the case to smallcaps.
\textsc{documentclass[ options ]{class} }\
```

```
(for L A TEX commands only)\
```

```
Preamble\
```

```
\textbf{begindocument}\
```

```
Document text
(text with embedded L A TEX commands)\
```

```
\textbf{enddocument}
\
\textit{documentclass[11pt]{article}}
\end{document}
```

2. Program to demonstrate different types of Lists and Bullets

```
%list creation using different bullets
\documentclass[10pt]{article}
\begin{document}
\begin{Huge}
Bullets
\end{Huge}

\begin{enumerate}
```

```
\item NewsPaper
```

```
\begin{itemize}
```

```
\item
```

```
Times
```

```
\item
```

```
Hindu
```

```
\end{itemize}
```

```
\item
```

```
Ennadu
```

```
\item
```

```
Varta
```

```
\begin{itemize}
```

```
\item[*]
```

```
district edition
```

```
\item[*]
```

```
main paper
```

```
\end{itemize}
```

```
\begin{itemize}
```

```
\item[Fruits:]
```

```
Apple\\
```

```
Orange
```

```
\item[Icecreams]
```

```
Venila\\
```

```
Pista\\
```

```
\end{itemize}
```

```
\end{enumerate}
```

```
\end{document}
```

3.Program to demonstrate printing mathematical equations.

```
%Represting mathematical formulas
```

```
\documentclass[12pt]{article}
```

```
\usepackage{amsmath}
```

```
\title{First Program}
```

```
\author{K Srinivas}
```

```
\begin{document}
```

```
\maketitle
```

```
\textbf{\begin{LARGE}}
```

```
This latex program demonstrates printing Mathematical Equations
```

```
\end{LARGE}}
```

```
\textbf{printing a Polynomial}\\
```

```
$ax^2+bx+c=0$\\
```

```
\\
```

```
\textbf{Integration}
```

```
\\
```

```
$f(x)=\int^b_a x^3 dx$\\
```

```
\textbf{sq. root}
```

```
$$\sqrt{b^2-4ac}$$\\
```

```
\textbf{fraction}
```

```
$$\int^1_0 \frac{5}{4} x dx$\\
```

```
\\
```

```
\textbf{differentiation}
```

```
$$\frac{d}{dx}(x^2-2x+8)$\\
```

```
$ax^2+bx+c=0$\\
```

```
\\
```

```
\textbf{discriminant}\\
```

```
$$x=\frac{-b\pm\sqrt{b^2-4ac}}{2a}$\\
```

```
\end{document}
```

4.Program to demonstrate creation of hyper-link.

```
%creation to link another file or web site
```

```
\documentclass[10pt]{report}
```

```
\usepackage{hyperref}
```

```
\title{Linking to another File or Web Site}
```

```
\author{Srinivas K}
```

```
\begin{document}
```

```
\maketitle
```

```
Using \href{file/url path}{label} \\
```

```
\href{https://www.google.com}{click here to open web page}
```

```
\href{\href{file:/home/haritha/hdfc.doc}{click here to open another latex file}}
```

```
\end{document}
```

5.Program to demonstrate insertion of an image in the output.

```
%put an emage into the document
```

```
\documentclass[10pt]{article}
```

```
\usepackage{graphicx}
```

```

\begin{document}
\textbf{This about Image palcing in the document}
\includegraphics[scale=.50]{/home/haritha/LATEX-Progs/Photo-Haritha.jpeg}
\end{document}

```

6.Program to display simple geometric patterns in the output

```

%creating objects
\documentclass[11pt]{article}
\usepackage{tikz}
\author{Srinivas K}
\title{shapes}

\begin{document}
\maketitle

\begin{center}
Article showing how to Draw Circle,ellipse and line in Latex
\end{center}

\begin{tikzpicture}

\draw [black,fill=blue,dashed] (5,5) circle(3); \\\

\draw [black,fill=green,dashed](-2,-2) ellipse(2 and 1); \\\

\draw(0,0)-- (8,0);

\end{tikzpicture}

\end{document}

```

7.Program to create a table

```

\documentclass[10pt,a4paper]{book}
\begin{document}
\begin{table}[]
\centering
\begin{center}
\caption{Account Details}
\end{center}

\begin{tabular}{|p{1cm}|p{1cm}|p{2cm}|p{1cm}|p{1cm}| }
\hline

\hline
S.No & Name & A/C No & Balance & \\\
\hline
R1 & RAM & A101 & 6355 & \\\
\hline
R2 & ABHI & A102 & 6985 & \\\
\hline
R3 & SID & A103 & 7153 & \\\
\hline

```

```

\end{tabular}

\end{table}
\end{document}

```

8. Program to demonstrate preparation of a complete report.

```

%Report in document class using Latex commands
\documentclass[10pt,a4paper]{report}
\usepackage{tikz}
\title{latex report}
\begin{document}
\maketitle

\begin{abstract}
This report explains briefly about Hadoop eco-system, HDFS architecture and Map-Reduce.
\end{abstract}

\tableofcontents{}
\listoffigures{}
\listoftables{}

\part{Hadoop}
\chapter{Introduction}

\section{What is Hadoop}
Hadoop is a distributed data processing frame work.Its File system is called HDFS

\subsection{HDFS}
HDFS Stands for Hadoop Distributed File System
\paragraph{Map Reduce}
\begin{center}
\textbf{Hadoop uses Map Reduce Frame Work To process the data}
\end{center}

\part{Results}

\begin{figure}
\begin{center}
\caption{ Circle}
\end{center}

\begin{tikzpicture}
\draw(1,1) circle(3 and 3);

\end{tikzpicture}

\end{figure}

%creating tabular form
\begin{table}
\begin{center}
\caption{Yearly Report }
\end{center}

\begin{tabular}{|p{1cm}| p{1cm}|p{1cm}| p{1cm}|}
\hline
City & Year\\
\cline{2-4}

```

```
& 1960 & 1970 & 1980\\
\hline
A & 50 & 60 & 60\\
\hline
B & 70 & 80 & 90\\
\hline
C & 90 & 79 & 89\\
\hline
\end{tabular}
\end{table}

\end{document}
```