Ravi_Teja_Kothuru_AAI_530_A1_M5_Assignment_5.1

February 10, 2025

1 Read dataset into a dataframe

```
[10]: import pandas as pd
      df = pd.read_csv("/content/household_power_clean.csv")
```

```
[11]: df.head()
```

```
[11]:    Unnamed: 0        Date       Time  Global_active_power  \
      0           0  2006-12-16  17:24:00                4.216
      1           1  2006-12-16  17:25:00                5.360
      2           2  2006-12-16  17:26:00                5.374
      3           3  2006-12-16  17:27:00                5.388
      4           4  2006-12-16  17:28:00                3.666

         Global_reactive_power  Voltage  Global_intensity  Sub_metering_1  \
      0                  0.418   234.84              18.4             0.0
      1                  0.436   233.63              23.0             0.0
      2                  0.498   233.29              23.0             0.0
      3                  0.502   233.74              23.0             0.0
      4                  0.528   235.68              15.8             0.0

         Sub_metering_2  Sub_metering_3             Datetime  gap_monthly  \
      0             1.0            17.0  2006-12-16 17:24:00          NaN
      1             1.0            16.0  2006-12-16 17:25:00          NaN
      2             2.0            17.0  2006-12-16 17:26:00          NaN
      3             1.0            17.0  2006-12-16 17:27:00          NaN
      4             1.0            17.0  2006-12-16 17:28:00          NaN

         grp_monthly  v_monthly  gi_monthly
      0          NaN        NaN         NaN
      1          NaN        NaN         NaN
      2          NaN        NaN         NaN
      3          NaN        NaN         NaN
      4          NaN        NaN         NaN
```

```
[12]: df.tail()
```

```
[12]:           Unnamed: 0        Date      Time  Global_active_power  \
     2049275     2075254  2010-11-26  20:58:00                0.946
     2049276     2075255  2010-11-26  20:59:00                0.944
     2049277     2075256  2010-11-26  21:00:00                0.938
     2049278     2075257  2010-11-26  21:01:00                0.934
     2049279     2075258  2010-11-26  21:02:00                0.932

              Global_reactive_power  Voltage  Global_intensity  Sub_metering_1  \
     2049275                    0.0   240.43               4.0             0.0
     2049276                    0.0   240.00               4.0             0.0
     2049277                    0.0   239.82               3.8             0.0
     2049278                    0.0   239.70               3.8             0.0
     2049279                    0.0   239.55               3.8             0.0

              Sub_metering_2  Sub_metering_3             Datetime  gap_monthly  \
     2049275             0.0             0.0  2010-11-26 20:58:00     0.971133
     2049276             0.0             0.0  2010-11-26 20:59:00     0.970667
     2049277             0.0             0.0  2010-11-26 21:00:00     0.969267
     2049278             0.0             0.0  2010-11-26 21:01:00     0.967667
     2049279             0.0             0.0  2010-11-26 21:02:00     0.966000

              grp_monthly   v_monthly  gi_monthly
     2049275       0.0348  238.936667    4.080000
     2049276       0.0348  238.975000    4.080000
     2049277       0.0348  238.988000    4.066667
     2049278       0.0348  239.000333    4.053333
     2049279       0.0348  238.978667    4.040000
```

```
[13]: df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 2049280 entries, 0 to 2049279
Data columns (total 15 columns):
 #   Column                 Dtype
---  ------                 -----
 0   Unnamed: 0             int64
 1   Date                   object
 2   Time                   object
 3   Global_active_power    float64
 4   Global_reactive_power  float64
 5   Voltage                float64
 6   Global_intensity       float64
 7   Sub_metering_1         float64
 8   Sub_metering_2         float64
 9   Sub_metering_3         float64
 10  Datetime               object
 11  gap_monthly            float64
```

```
12  grp_monthly          float64
13  v_monthly            float64
14  gi_monthly           float64
dtypes: float64(11), int64(1), object(3)
memory usage: 234.5+ MB
```

[14]: `df.columns`

[14]: Index(['Unnamed: 0', 'Date', 'Time', 'Global_active_power',
       'Global_reactive_power', 'Voltage', 'Global_intensity',
       'Sub_metering_1', 'Sub_metering_2', 'Sub_metering_3', 'Datetime',
       'gap_monthly', 'grp_monthly', 'v_monthly', 'gi_monthly'],
      dtype='object')

[15]: `df.describe()`

[15]:
	Unnamed: 0	Global_active_power	Global_reactive_power	Voltage \
count	2.049280e+06	2.049280e+06	2.049280e+06	2.049280e+06
mean	1.031496e+06	1.091615e+00	1.237145e-01	2.408399e+02
std	5.964586e+05	1.057294e+00	1.127220e-01	3.239987e+00
min	0.000000e+00	7.600000e-02	0.000000e+00	2.232000e+02
25%	5.162538e+05	3.080000e-01	4.800000e-02	2.389900e+02
50%	1.028638e+06	6.020000e-01	1.000000e-01	2.410100e+02
75%	1.545307e+06	1.528000e+00	1.940000e-01	2.428900e+02
max	2.075258e+06	1.112200e+01	1.390000e+00	2.541500e+02

	Global_intensity	Sub_metering_1	Sub_metering_2	Sub_metering_3 \
count	2.049280e+06	2.049280e+06	2.049280e+06	2.049280e+06
mean	4.627759e+00	1.121923e+00	1.298520e+00	6.458447e+00
std	4.444396e+00	6.153031e+00	5.822026e+00	8.437154e+00
min	2.000000e-01	0.000000e+00	0.000000e+00	0.000000e+00
25%	1.400000e+00	0.000000e+00	0.000000e+00	0.000000e+00
50%	2.600000e+00	0.000000e+00	0.000000e+00	1.000000e+00
75%	6.400000e+00	0.000000e+00	1.000000e+00	1.700000e+01
max	4.840000e+01	8.800000e+01	8.000000e+01	3.100000e+01

	gap_monthly	grp_monthly	v_monthly	gi_monthly
count	2.049251e+06	2.049251e+06	2.049251e+06	2.049251e+06
mean	1.091592e+00	1.237133e-01	2.408399e+02	4.627662e+00
std	9.516172e-01	7.736539e-02	3.080626e+00	3.987975e+00
min	8.166667e-02	0.000000e+00	2.255873e+02	2.200000e-01
25%	3.301333e-01	6.960000e-02	2.391050e+02	1.460000e+00
50%	7.143333e-01	1.030000e-01	2.409840e+02	3.073333e+00
75%	1.569933e+00	1.593333e-01	2.427670e+02	6.560000e+00
max	7.966200e+00	7.897333e-01	2.524423e+02	3.423333e+01

2 Check for null values and drop them

```
[16]: df.isnull().sum()
```

```
[16]: Unnamed: 0                0
      Date                      0
      Time                      0
      Global_active_power       0
      Global_reactive_power     0
      Voltage                   0
      Global_intensity          0
      Sub_metering_1            0
      Sub_metering_2            0
      Sub_metering_3            0
      Datetime                  0
      gap_monthly              29
      grp_monthly              29
      v_monthly                29
      gi_monthly               29
      dtype: int64
```

```
[17]: df = df.dropna()
```

```
[18]: df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
Index: 2049251 entries, 29 to 2049279
Data columns (total 15 columns):
 #   Column                 Dtype
---  ------                 -----
 0   Unnamed: 0             int64
 1   Date                   object
 2   Time                   object
 3   Global_active_power    float64
 4   Global_reactive_power  float64
 5   Voltage                float64
 6   Global_intensity       float64
 7   Sub_metering_1         float64
 8   Sub_metering_2         float64
 9   Sub_metering_3         float64
 10  Datetime               object
 11  gap_monthly            float64
 12  grp_monthly            float64
 13  v_monthly              float64
 14  gi_monthly             float64
dtypes: float64(11), int64(1), object(3)
memory usage: 250.2+ MB
```

```
[19]: df.isnull().sum()
```

```
[19]: Unnamed: 0              0
      Date                   0
      Time                   0
      Global_active_power    0
      Global_reactive_power  0
      Voltage                0
      Global_intensity       0
      Sub_metering_1         0
      Sub_metering_2         0
      Sub_metering_3         0
      Datetime               0
      gap_monthly            0
      grp_monthly            0
      v_monthly              0
      gi_monthly             0
      dtype: int64
```

3 Take last 10000 rows of the dataset as Tableau dashboard cannot take the entire dataset. Note that the original dataset (after removing null values) has 2049251 rows.

```
[23]: subset_df = df.tail(10000)
```

```
[24]: subset_df.shape
```

```
[24]: (10000, 15)
```

4 Save the subset to a CSV file

```
[25]: # Save the subset
      subset_file_path = "/content/household_power_clean_subset.csv"
      subset_df.to_csv(subset_file_path, index=False)

      print(f"Subset saved as {subset_file_path}")
```

```
Subset saved as /content/household_power_clean_subset.csv
```

```
[26]: subset_df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
Index: 10000 entries, 2039280 to 2049279
Data columns (total 15 columns):
 #   Column                 Non-Null Count  Dtype
```

```
 ---   ------               --------------  -----
  0    Unnamed: 0           10000 non-null  int64
  1    Date                 10000 non-null  object
  2    Time                 10000 non-null  object
  3    Global_active_power  10000 non-null  float64
  4    Global_reactive_power 10000 non-null float64
  5    Voltage              10000 non-null  float64
  6    Global_intensity     10000 non-null  float64
  7    Sub_metering_1       10000 non-null  float64
  8    Sub_metering_2       10000 non-null  float64
  9    Sub_metering_3       10000 non-null  float64
  10   Datetime             10000 non-null  object
  11   gap_monthly          10000 non-null  float64
  12   grp_monthly          10000 non-null  float64
  13   v_monthly            10000 non-null  float64
  14   gi_monthly           10000 non-null  float64
dtypes: float64(11), int64(1), object(3)
memory usage: 1.2+ MB
```

[27]: `subset_df.describe()`

[27]:

	Unnamed: 0	Global_active_power	Global_reactive_power	Voltage
count	1.000000e+04	10000.000000	10000.000000	10000.000000
mean	2.070258e+06	1.146602	0.093189	240.664805
std	2.886896e+03	1.003507	0.087506	3.580226
min	2.065259e+06	0.210000	0.000000	225.320000
25%	2.067759e+06	0.326000	0.048000	238.180000
50%	2.070258e+06	0.875000	0.070000	241.060000
75%	2.072758e+06	1.586000	0.134000	243.440000
max	2.075258e+06	9.724000	0.802000	249.100000

	Global_intensity	Sub_metering_1	Sub_metering_2	Sub_metering_3
count	10000.000000	10000.000000	10000.000000	10000.000000
mean	4.847320	1.434500	0.972400	6.124300
std	4.283948	6.559528	4.802952	8.340864
min	1.000000	0.000000	0.000000	0.000000
25%	1.400000	0.000000	0.000000	0.000000
50%	3.800000	0.000000	0.000000	0.000000
75%	6.600000	0.000000	1.000000	17.000000
max	43.000000	57.000000	69.000000	19.000000

	gap_monthly	grp_monthly	v_monthly	gi_monthly
count	10000.000000	10000.000000	10000.000000	10000.000000
mean	1.146399	0.093239	240.661549	4.846564
std	0.901647	0.052301	3.385727	3.843827
min	0.241200	0.019067	228.661000	1.080000
25%	0.334133	0.058667	238.245833	1.433333

50%	1.029000	0.075467	241.021000	4.320000
75%	1.644000	0.115933	243.322250	6.933333
max	7.216667	0.360333	247.087000	31.820000

5 Save the file as HTML and PDF

5.1 Install required libraries to convert to a HTML and PDF

```
[28]: !apt-get update
      !apt-get install pandoc
      !apt-get install inkscape
      !apt-get install texlive-xetex texlive-fonts-recommended texlive-latex-extra
```

```
 0% [Working]              Get:1 https://cloud.r-project.org/bin/linux/ubuntu
jammy-cran40/ InRelease [3,632 B]
 0% [Connecting to archive.ubuntu.com (91.189.91.83)] [Waiting for headers] [1
InRelease 0 B/3,632 B
Get:2 http://security.ubuntu.com/ubuntu jammy-security InRelease [129 kB]
Get:3 https://developer.download.nvidia.com/compute/cuda/repos/ubuntu2204/x86_64
InRelease [1,581 B]
Hit:4 http://archive.ubuntu.com/ubuntu jammy InRelease
Get:5 https://r2u.stat.illinois.edu/ubuntu jammy InRelease [6,555 B]
Get:6 http://archive.ubuntu.com/ubuntu jammy-updates InRelease [128 kB]
Get:7 https://cloud.r-project.org/bin/linux/ubuntu jammy-cran40/ Packages [66.7
kB]
Get:8 https://developer.download.nvidia.com/compute/cuda/repos/ubuntu2204/x86_64
Packages [1,309 kB]
Get:9 http://archive.ubuntu.com/ubuntu jammy-backports InRelease [127 kB]
Hit:10 https://ppa.launchpadcontent.net/deadsnakes/ppa/ubuntu jammy InRelease
Get:11 https://ppa.launchpadcontent.net/graphics-drivers/ppa/ubuntu jammy
InRelease [24.3 kB]
Get:12 https://r2u.stat.illinois.edu/ubuntu jammy/main all Packages [8,663 kB]
Hit:13 https://ppa.launchpadcontent.net/ubuntugis/ppa/ubuntu jammy InRelease
Get:14 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages
[2,606 kB]
Get:15 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages
[1,523 kB]
Get:16 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 Packages
[1,230 kB]
Get:17 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [2,910
kB]
Get:18 https://r2u.stat.illinois.edu/ubuntu jammy/main amd64 Packages [2,653 kB]
Get:19 http://archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages
[3,748 kB]
Get:20 https://ppa.launchpadcontent.net/graphics-drivers/ppa/ubuntu jammy/main
amd64 Packages [57.8 kB]
Fetched 25.2 MB in 4s (7,132 kB/s)
```

Reading package lists… Done
W: Skipping acquire of configured file 'main/source/Sources' as repository
'https://r2u.stat.illinois.edu/ubuntu jammy InRelease' does not seem to provide
it (sources.list entry misspelt?)
Reading package lists… Done
Building dependency tree… Done
Reading state information… Done
The following additional packages will be installed:
  libcmark-gfm-extensions0.29.0.gfm.3 libcmark-gfm0.29.0.gfm.3 pandoc-data
Suggested packages:
  texlive-latex-recommended texlive-xetex texlive-luatex pandoc-citeproc
texlive-latex-extra
  context wkhtmltopdf librsvg2-bin groff ghc nodejs php python ruby libjs-
mathjax libjs-katex
  citation-style-language-styles
The following NEW packages will be installed:
  libcmark-gfm-extensions0.29.0.gfm.3 libcmark-gfm0.29.0.gfm.3 pandoc pandoc-
data
0 upgraded, 4 newly installed, 0 to remove and 25 not upgraded.
Need to get 20.6 MB of archives.
After this operation, 156 MB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu jammy/universe amd64 libcmark-
gfm0.29.0.gfm.3 amd64 0.29.0.gfm.3-3 [115 kB]
Get:2 http://archive.ubuntu.com/ubuntu jammy/universe amd64 libcmark-gfm-
extensions0.29.0.gfm.3 amd64 0.29.0.gfm.3-3 [25.1 kB]
Get:3 http://archive.ubuntu.com/ubuntu jammy/universe amd64 pandoc-data all
2.9.2.1-3ubuntu2 [81.8 kB]
Get:4 http://archive.ubuntu.com/ubuntu jammy/universe amd64 pandoc amd64
2.9.2.1-3ubuntu2 [20.3 MB]
Fetched 20.6 MB in 1s (18.7 MB/s)
Selecting previously unselected package libcmark-gfm0.29.0.gfm.3:amd64.
(Reading database … 124926 files and directories currently installed.)
Preparing to unpack …/libcmark-gfm0.29.0.gfm.3_0.29.0.gfm.3-3_amd64.deb …
Unpacking libcmark-gfm0.29.0.gfm.3:amd64 (0.29.0.gfm.3-3) …
Selecting previously unselected package libcmark-gfm-
extensions0.29.0.gfm.3:amd64.
Preparing to unpack …/libcmark-gfm-
extensions0.29.0.gfm.3_0.29.0.gfm.3-3_amd64.deb …
Unpacking libcmark-gfm-extensions0.29.0.gfm.3:amd64 (0.29.0.gfm.3-3) …
Selecting previously unselected package pandoc-data.
Preparing to unpack …/pandoc-data_2.9.2.1-3ubuntu2_all.deb …
Unpacking pandoc-data (2.9.2.1-3ubuntu2) …
Selecting previously unselected package pandoc.
Preparing to unpack …/pandoc_2.9.2.1-3ubuntu2_amd64.deb …
Unpacking pandoc (2.9.2.1-3ubuntu2) …
Setting up libcmark-gfm0.29.0.gfm.3:amd64 (0.29.0.gfm.3-3) …
Setting up libcmark-gfm-extensions0.29.0.gfm.3:amd64 (0.29.0.gfm.3-3) …
Setting up pandoc-data (2.9.2.1-3ubuntu2) …

```
Setting up pandoc (2.9.2.1-3ubuntu2) …
Processing triggers for man-db (2.10.2-1) …
Processing triggers for libc-bin (2.35-0ubuntu3.8) …
/sbin/ldconfig.real: /usr/local/lib/libtbbbind.so.3 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtcm_debug.so.1 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libur_adapter_opencl.so.0 is not a symbolic
link

/sbin/ldconfig.real: /usr/local/lib/libumf.so.0 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libur_loader.so.0 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libhwloc.so.15 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbmalloc_proxy.so.2 is not a symbolic
link

/sbin/ldconfig.real: /usr/local/lib/libtcm.so.1 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbbind_2_5.so.3 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbbind_2_0.so.3 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbb.so.12 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libur_adapter_level_zero.so.0 is not a
symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbmalloc.so.2 is not a symbolic link

Reading package lists… Done
Building dependency tree… Done
Reading state information… Done
The following additional packages will be installed:
  aspell aspell-en dictionaries-common enchant-2 fig2dev fonts-droid-fallback
fonts-noto-mono
  fonts-urw-base35 gawk ghostscript glib-networking glib-networking-common glib-
networking-services
  gsettings-desktop-schemas gsfonts hunspell-en-us imagemagick
imagemagick-6-common
  imagemagick-6.q16 lib2geom1.1.0 libaspell15 libatkmm-1.6-1v5
libcairomm-1.0-1v5 libcdr-0.1-1
  libdbus-glib-1-2 libdjvulibre-text libdjvulibre21 libenchant-2-2
libfftw3-double3
  libglibmm-2.4-1v5 libgs9 libgs9-common libgsl27 libgslcblas0 libgspell-1-2
libgspell-1-common
```

```
  libgtkmm-3.0-1v5 libhunspell-1.7-0 libidn12 libijs-0.35 libimage-magick-perl
  libimage-magick-q16-perl libjbig2dec0 libjxr-tools libjxr0 liblqr-1-0
libmagick++-6.q16-8
  libmagickcore-6.q16-6 libmagickcore-6.q16-6-extra libmagickwand-6.q16-6
libnetpbm10
  libpangomm-1.4-1v5 libpoppler-glib8 libpotrace0 libproxy1v5 librevenge-0.0-0
librsvg2-common
  libsigc++-2.0-0v5 libsoup2.4-1 libsoup2.4-common libtext-iconv-perl
libvisio-0.1-1 libwmf-0.2-7
  libwmf-bin libwmflite-0.2-7 libwpd-0.10-10 libwpg-0.3-3 netpbm poppler-data
python3-bs4
  python3-chardet python3-html5lib python3-lxml python3-numpy python3-scour
python3-soupsieve
  python3-webencodings session-migration
Suggested packages:
  aspell-doc spellutils wordlist xfig fonts-noto fonts-freefont-otf | fonts-
freefont-ttf
  fonts-texgyre gawk-doc ghostscript-x hunspell openoffice.org-hunspell |
openoffice.org-core
  imagemagick-doc autotrace cups-bsd | lpr | lprng enscript gimp gnuplot grads
hp2xx html2ps
  mplayer povray radiance sane-utils texlive-base-bin ufraw-batch dia inkscape-
tutorials
  libsvg-perl pstoedit python3-uniconvertor ruby libenchant-2-voikko
libfftw3-bin libfftw3-dev
  gsl-ref-psdoc | gsl-doc-pdf | gsl-doc-info | gsl-ref-html libwmf-0.2-7-gtk
poppler-utils
  fonts-japanese-mincho | fonts-ipafont-mincho fonts-japanese-gothic | fonts-
ipafont-gothic
  fonts-arphic-ukai fonts-arphic-uming fonts-nanum python3-genshi python-lxml-
doc python-numpy-doc
  python3-pytest
The following NEW packages will be installed:
  aspell aspell-en dictionaries-common enchant-2 fig2dev fonts-droid-fallback
fonts-noto-mono
  fonts-urw-base35 gawk ghostscript glib-networking glib-networking-common glib-
networking-services
  gsettings-desktop-schemas gsfonts hunspell-en-us imagemagick
imagemagick-6-common
  imagemagick-6.q16 inkscape lib2geom1.1.0 libaspell15 libatkmm-1.6-1v5
libcairomm-1.0-1v5
  libcdr-0.1-1 libdbus-glib-1-2 libdjvulibre-text libdjvulibre21 libenchant-2-2
libfftw3-double3
  libglibmm-2.4-1v5 libgs9 libgs9-common libgsl27 libgslcblas0 libgspell-1-2
libgspell-1-common
  libgtkmm-3.0-1v5 libhunspell-1.7-0 libidn12 libijs-0.35 libimage-magick-perl
  libimage-magick-q16-perl libjbig2dec0 libjxr-tools libjxr0 liblqr-1-0
libmagick++-6.q16-8
```

```
  libmagickcore-6.q16-6 libmagickcore-6.q16-6-extra libmagickwand-6.q16-6
libnetpbm10
  libpangomm-1.4-1v5 libpoppler-glib8 libpotrace0 libproxy1v5 librevenge-0.0-0
librsvg2-common
  libsigc++-2.0-0v5 libsoup2.4-1 libsoup2.4-common libtext-iconv-perl
libvisio-0.1-1 libwmf-0.2-7
  libwmf-bin libwmflite-0.2-7 libwpd-0.10-10 libwpg-0.3-3 netpbm poppler-data
python3-bs4
  python3-chardet python3-html5lib python3-lxml python3-numpy python3-scour
python3-soupsieve
  python3-webencodings session-migration
0 upgraded, 79 newly installed, 0 to remove and 25 not upgraded.
Need to get 55.8 MB of archives.
After this operation, 228 MB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu jammy/main amd64 fonts-droid-fallback all
1:6.0.1r16-1.1build1 [1,805 kB]
Get:2 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 gawk amd64
1:5.1.0-1ubuntu0.1 [447 kB]
Get:3 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64
imagemagick-6-common all 8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5 [64.3 kB]
Get:4 http://archive.ubuntu.com/ubuntu jammy/main amd64 libfftw3-double3 amd64
3.3.8-2ubuntu8 [770 kB]
Get:5 http://archive.ubuntu.com/ubuntu jammy/universe amd64 liblqr-1-0 amd64
0.4.2-2.1 [27.7 kB]
Get:6 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64
libmagickcore-6.q16-6 amd64 8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5 [1,795 kB]
Get:7 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 libimage-
magick-q16-perl amd64 8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5 [108 kB]
Get:8 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 libimage-
magick-perl all 8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5 [53.9 kB]
Get:9 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64
libmagickwand-6.q16-6 amd64 8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5 [328 kB]
Get:10 http://archive.ubuntu.com/ubuntu jammy/main amd64 poppler-data all
0.4.11-1 [2,171 kB]
Get:11 http://archive.ubuntu.com/ubuntu jammy/main amd64 libtext-iconv-perl
amd64 1.7-7build3 [14.3 kB]
Get:12 http://archive.ubuntu.com/ubuntu jammy/main amd64 libaspell15 amd64
0.60.8-4build1 [325 kB]
Get:13 http://archive.ubuntu.com/ubuntu jammy/main amd64 dictionaries-common all
1.28.14 [185 kB]
Get:14 http://archive.ubuntu.com/ubuntu jammy/main amd64 aspell amd64
0.60.8-4build1 [87.7 kB]
Get:15 http://archive.ubuntu.com/ubuntu jammy/main amd64 aspell-en all
2018.04.16-0-1 [299 kB]
Get:16 http://archive.ubuntu.com/ubuntu jammy/main amd64 hunspell-en-us all
1:2020.12.07-2 [280 kB]
Get:17 http://archive.ubuntu.com/ubuntu jammy/main amd64 libhunspell-1.7-0 amd64
1.7.0-4build1 [175 kB]
```

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Get:18 http://archive.ubuntu.com/ubuntu jammy/main amd64 libenchant-2-2 amd64
2.3.2-1ubuntu2 [50.9 kB]
Get:19 http://archive.ubuntu.com/ubuntu jammy/main amd64 enchant-2 amd64
2.3.2-1ubuntu2 [13.0 kB]
Get:20 http://archive.ubuntu.com/ubuntu jammy/main amd64 fonts-urw-base35 all
20200910-1 [6,367 kB]
Get:21 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libgs9-common
all 9.55.0~dfsg1-0ubuntu5.10 [752 kB]
Get:22 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libidn12 amd64
1.38-4ubuntu1 [60.0 kB]
Get:23 http://archive.ubuntu.com/ubuntu jammy/main amd64 libijs-0.35 amd64
0.35-15build2 [16.5 kB]
Get:24 http://archive.ubuntu.com/ubuntu jammy/main amd64 libjbig2dec0 amd64
0.19-3build2 [64.7 kB]
Get:25 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libgs9 amd64
9.55.0~dfsg1-0ubuntu5.10 [5,031 kB]
Get:26 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 ghostscript
amd64 9.55.0~dfsg1-0ubuntu5.10 [49.4 kB]
Get:27 http://archive.ubuntu.com/ubuntu jammy/universe amd64 libnetpbm10 amd64
2:10.0-15.4 [59.1 kB]
Get:28 http://archive.ubuntu.com/ubuntu jammy/universe amd64 netpbm amd64
2:10.0-15.4 [1,007 kB]
Get:29 http://archive.ubuntu.com/ubuntu jammy/universe amd64 fig2dev amd64
1:3.2.8b-1 [440 kB]
Get:30 http://archive.ubuntu.com/ubuntu jammy/main amd64 fonts-noto-mono all
20201225-1build1 [397 kB]
Get:31 http://archive.ubuntu.com/ubuntu jammy/main amd64 libproxy1v5 amd64
0.4.17-2 [51.9 kB]
Get:32 http://archive.ubuntu.com/ubuntu jammy/main amd64 glib-networking-common
all 2.72.0-1 [3,718 B]
Get:33 http://archive.ubuntu.com/ubuntu jammy/main amd64 glib-networking-
services amd64 2.72.0-1 [9,982 B]
Get:34 http://archive.ubuntu.com/ubuntu jammy/main amd64 session-migration amd64
0.3.6 [9,774 B]
Get:35 http://archive.ubuntu.com/ubuntu jammy/main amd64 gsettings-desktop-
schemas all 42.0-1ubuntu1 [31.1 kB]
Get:36 http://archive.ubuntu.com/ubuntu jammy/main amd64 glib-networking amd64
2.72.0-1 [69.8 kB]
Get:37 http://archive.ubuntu.com/ubuntu jammy/universe amd64 gsfonts all
1:8.11+urwcyr1.0.7~pre44-4.5 [3,120 kB]
Get:38 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64
imagemagick-6.q16 amd64 8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5 [224 kB]
Get:39 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 imagemagick
amd64 8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5 [14.6 kB]
Get:40 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 librsvg2-common
amd64 2.52.5+dfsg-3ubuntu0.2 [17.7 kB]
Get:41 http://archive.ubuntu.com/ubuntu jammy/universe amd64 libgslcblas0 amd64
2.7.1+dfsg-3 [94.4 kB]
```

```
Get:42 http://archive.ubuntu.com/ubuntu jammy/universe amd64 libgsl27 amd64
2.7.1+dfsg-3 [1,000 kB]
Get:43 http://archive.ubuntu.com/ubuntu jammy/universe amd64 lib2geom1.1.0 amd64
1.1-2build1 [346 kB]
Get:44 http://archive.ubuntu.com/ubuntu jammy/main amd64 libsigc++-2.0-0v5 amd64
2.10.4-2ubuntu3 [12.1 kB]
Get:45 http://archive.ubuntu.com/ubuntu jammy/main amd64 libglibmm-2.4-1v5 amd64
2.66.2-2 [645 kB]
Get:46 http://archive.ubuntu.com/ubuntu jammy/main amd64 libatkmm-1.6-1v5 amd64
2.28.2-1build1 [78.5 kB]
Get:47 http://archive.ubuntu.com/ubuntu jammy/main amd64 libcairomm-1.0-1v5
amd64 1.12.2-4build3 [45.1 kB]
Get:48 http://archive.ubuntu.com/ubuntu jammy/main amd64 librevenge-0.0-0 amd64
0.0.4-6ubuntu7 [209 kB]
Get:49 http://archive.ubuntu.com/ubuntu jammy/main amd64 libcdr-0.1-1 amd64
0.1.6-2build2 [392 kB]
Get:50 http://archive.ubuntu.com/ubuntu jammy/main amd64 libdbus-glib-1-2 amd64
0.112-2build1 [65.4 kB]
Get:51 http://archive.ubuntu.com/ubuntu jammy/main amd64 libgspell-1-common all
1.9.1-4 [6,114 B]
Get:52 http://archive.ubuntu.com/ubuntu jammy/main amd64 libgspell-1-2 amd64
1.9.1-4 [56.5 kB]
Get:53 http://archive.ubuntu.com/ubuntu jammy/main amd64 libpangomm-1.4-1v5
amd64 2.46.2-1 [56.1 kB]
Get:54 http://archive.ubuntu.com/ubuntu jammy/main amd64 libgtkmm-3.0-1v5 amd64
3.24.5-1build1 [1,003 kB]
Get:55 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64
libmagick++-6.q16-8 amd64 8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5 [157 kB]
Get:56 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libpoppler-
glib8 amd64 22.02.0-2ubuntu0.6 [134 kB]
Get:57 http://archive.ubuntu.com/ubuntu jammy/universe amd64 libpotrace0 amd64
1.16-2 [17.2 kB]
Get:58 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64
libsoup2.4-common all 2.74.2-3ubuntu0.1 [4,070 B]
Get:59 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libsoup2.4-1
amd64 2.74.2-3ubuntu0.1 [288 kB]
Get:60 http://archive.ubuntu.com/ubuntu jammy/main amd64 libvisio-0.1-1 amd64
0.1.7-1build5 [238 kB]
Get:61 http://archive.ubuntu.com/ubuntu jammy/main amd64 libwpd-0.10-10 amd64
0.10.3-2build1 [209 kB]
Get:62 http://archive.ubuntu.com/ubuntu jammy/main amd64 libwpg-0.3-3 amd64
0.3.3-1build3 [49.9 kB]
Get:63 http://archive.ubuntu.com/ubuntu jammy/universe amd64 inkscape amd64
1.1.2-3ubuntu1 [17.8 MB]
Get:64 http://archive.ubuntu.com/ubuntu jammy/main amd64 libdjvulibre-text all
3.5.28-2build2 [50.9 kB]
Get:65 http://archive.ubuntu.com/ubuntu jammy/main amd64 libdjvulibre21 amd64
3.5.28-2build2 [624 kB]
```

```
Get:66 http://archive.ubuntu.com/ubuntu jammy/universe amd64 libjxr0 amd64
1.2~git20170615.f752187-5 [174 kB]
Get:67 http://archive.ubuntu.com/ubuntu jammy/universe amd64 libjxr-tools amd64
1.2~git20170615.f752187-5 [16.0 kB]
Get:68 http://archive.ubuntu.com/ubuntu jammy/main amd64 libwmflite-0.2-7 amd64
0.2.12-5ubuntu1 [68.9 kB]
Get:69 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64
libmagickcore-6.q16-6-extra amd64 8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5 [70.1 kB]
Get:70 http://archive.ubuntu.com/ubuntu jammy/main amd64 libwmf-0.2-7 amd64
0.2.12-5ubuntu1 [94.2 kB]
Get:71 http://archive.ubuntu.com/ubuntu jammy/universe amd64 libwmf-bin amd64
0.2.12-5ubuntu1 [34.3 kB]
Get:72 http://archive.ubuntu.com/ubuntu jammy/main amd64 python3-soupsieve all
2.3.1-1 [33.0 kB]
Get:73 http://archive.ubuntu.com/ubuntu jammy/main amd64 python3-bs4 all
4.10.0-2 [79.1 kB]
Get:74 http://archive.ubuntu.com/ubuntu jammy/main amd64 python3-chardet all
4.0.0-1 [98.0 kB]
Get:75 http://archive.ubuntu.com/ubuntu jammy/main amd64 python3-webencodings
all 0.5.1-4 [11.8 kB]
Get:76 http://archive.ubuntu.com/ubuntu jammy/main amd64 python3-html5lib all
1.1-3 [87.0 kB]
Get:77 http://archive.ubuntu.com/ubuntu jammy/main amd64 python3-lxml amd64
4.8.0-1build1 [1,150 kB]
Get:78 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 python3-numpy
amd64 1:1.21.5-1ubuntu22.04.1 [3,467 kB]
Get:79 http://archive.ubuntu.com/ubuntu jammy/universe amd64 python3-scour all
0.38.2-2 [49.4 kB]
Fetched 55.8 MB in 2s (25.5 MB/s)
Extracting templates from packages: 100%
Preconfiguring packages …
Selecting previously unselected package fonts-droid-fallback.
(Reading database … 125151 files and directories currently installed.)
Preparing to unpack …/00-fonts-droid-fallback_1%3a6.0.1r16-1.1build1_all.deb
…
Unpacking fonts-droid-fallback (1:6.0.1r16-1.1build1) …
Selecting previously unselected package gawk.
Preparing to unpack …/01-gawk_1%3a5.1.0-1ubuntu0.1_amd64.deb …
Unpacking gawk (1:5.1.0-1ubuntu0.1) …
Selecting previously unselected package imagemagick-6-common.
Preparing to unpack
…/02-imagemagick-6-common_8%3a6.9.11.60+dfsg-1.3ubuntu0.22.04.5_all.deb …
Unpacking imagemagick-6-common (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) …
Selecting previously unselected package libfftw3-double3:amd64.
Preparing to unpack …/03-libfftw3-double3_3.3.8-2ubuntu8_amd64.deb …
Unpacking libfftw3-double3:amd64 (3.3.8-2ubuntu8) …
Selecting previously unselected package liblqr-1-0:amd64.
Preparing to unpack …/04-liblqr-1-0_0.4.2-2.1_amd64.deb …
```

```
Unpacking liblqr-1-0:amd64 (0.4.2-2.1) …
Selecting previously unselected package libmagickcore-6.q16-6:amd64.
Preparing to unpack
…/05-libmagickcore-6.q16-6_8%3a6.9.11.60+dfsg-1.3ubuntu0.22.04.5_amd64.deb …
Unpacking libmagickcore-6.q16-6:amd64 (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) …
Selecting previously unselected package libimage-magick-q16-perl.
Preparing to unpack …/06-libimage-
magick-q16-perl_8%3a6.9.11.60+dfsg-1.3ubuntu0.22.04.5_amd64.deb …
Unpacking libimage-magick-q16-perl (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) …
Selecting previously unselected package libimage-magick-perl.
Preparing to unpack …/07-libimage-magick-
perl_8%3a6.9.11.60+dfsg-1.3ubuntu0.22.04.5_all.deb …
Unpacking libimage-magick-perl (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) …
Selecting previously unselected package libmagickwand-6.q16-6:amd64.
Preparing to unpack
…/08-libmagickwand-6.q16-6_8%3a6.9.11.60+dfsg-1.3ubuntu0.22.04.5_amd64.deb …
Unpacking libmagickwand-6.q16-6:amd64 (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) …
Selecting previously unselected package poppler-data.
Preparing to unpack …/09-poppler-data_0.4.11-1_all.deb …
Unpacking poppler-data (0.4.11-1) …
Selecting previously unselected package libtext-iconv-perl.
Preparing to unpack …/10-libtext-iconv-perl_1.7-7build3_amd64.deb …
Unpacking libtext-iconv-perl (1.7-7build3) …
Selecting previously unselected package libaspell15:amd64.
Preparing to unpack …/11-libaspell15_0.60.8-4build1_amd64.deb …
Unpacking libaspell15:amd64 (0.60.8-4build1) …
Selecting previously unselected package dictionaries-common.
Preparing to unpack …/12-dictionaries-common_1.28.14_all.deb …
Adding 'diversion of /usr/share/dict/words to /usr/share/dict/words.pre-
dictionaries-common by dictionaries-common'
Unpacking dictionaries-common (1.28.14) …
Selecting previously unselected package aspell.
Preparing to unpack …/13-aspell_0.60.8-4build1_amd64.deb …
Unpacking aspell (0.60.8-4build1) …
Selecting previously unselected package aspell-en.
Preparing to unpack …/14-aspell-en_2018.04.16-0-1_all.deb …
Unpacking aspell-en (2018.04.16-0-1) …
Selecting previously unselected package hunspell-en-us.
Preparing to unpack …/15-hunspell-en-us_1%3a2020.12.07-2_all.deb …
Unpacking hunspell-en-us (1:2020.12.07-2) …
Selecting previously unselected package libhunspell-1.7-0:amd64.
Preparing to unpack …/16-libhunspell-1.7-0_1.7.0-4build1_amd64.deb …
Unpacking libhunspell-1.7-0:amd64 (1.7.0-4build1) …
Selecting previously unselected package libenchant-2-2:amd64.
Preparing to unpack …/17-libenchant-2-2_2.3.2-1ubuntu2_amd64.deb …
Unpacking libenchant-2-2:amd64 (2.3.2-1ubuntu2) …
Selecting previously unselected package enchant-2.
Preparing to unpack …/18-enchant-2_2.3.2-1ubuntu2_amd64.deb …
```

```
Unpacking enchant-2 (2.3.2-1ubuntu2) …
Selecting previously unselected package fonts-urw-base35.
Preparing to unpack …/19-fonts-urw-base35_20200910-1_all.deb …
Unpacking fonts-urw-base35 (20200910-1) …
Selecting previously unselected package libgs9-common.
Preparing to unpack …/20-libgs9-common_9.55.0~dfsg1-0ubuntu5.10_all.deb …
Unpacking libgs9-common (9.55.0~dfsg1-0ubuntu5.10) …
Selecting previously unselected package libidn12:amd64.
Preparing to unpack …/21-libidn12_1.38-4ubuntu1_amd64.deb …
Unpacking libidn12:amd64 (1.38-4ubuntu1) …
Selecting previously unselected package libijs-0.35:amd64.
Preparing to unpack …/22-libijs-0.35_0.35-15build2_amd64.deb …
Unpacking libijs-0.35:amd64 (0.35-15build2) …
Selecting previously unselected package libjbig2dec0:amd64.
Preparing to unpack …/23-libjbig2dec0_0.19-3build2_amd64.deb …
Unpacking libjbig2dec0:amd64 (0.19-3build2) …
Selecting previously unselected package libgs9:amd64.
Preparing to unpack …/24-libgs9_9.55.0~dfsg1-0ubuntu5.10_amd64.deb …
Unpacking libgs9:amd64 (9.55.0~dfsg1-0ubuntu5.10) …
Selecting previously unselected package ghostscript.
Preparing to unpack …/25-ghostscript_9.55.0~dfsg1-0ubuntu5.10_amd64.deb …
Unpacking ghostscript (9.55.0~dfsg1-0ubuntu5.10) …
Selecting previously unselected package libnetpbm10.
Preparing to unpack …/26-libnetpbm10_2%3a10.0-15.4_amd64.deb …
Unpacking libnetpbm10 (2:10.0-15.4) …
Selecting previously unselected package netpbm.
Preparing to unpack …/27-netpbm_2%3a10.0-15.4_amd64.deb …
Unpacking netpbm (2:10.0-15.4) …
Selecting previously unselected package fig2dev.
Preparing to unpack …/28-fig2dev_1%3a3.2.8b-1_amd64.deb …
Unpacking fig2dev (1:3.2.8b-1) …
Selecting previously unselected package fonts-noto-mono.
Preparing to unpack …/29-fonts-noto-mono_20201225-1build1_all.deb …
Unpacking fonts-noto-mono (20201225-1build1) …
Selecting previously unselected package libproxy1v5:amd64.
Preparing to unpack …/30-libproxy1v5_0.4.17-2_amd64.deb …
Unpacking libproxy1v5:amd64 (0.4.17-2) …
Selecting previously unselected package glib-networking-common.
Preparing to unpack …/31-glib-networking-common_2.72.0-1_all.deb …
Unpacking glib-networking-common (2.72.0-1) …
Selecting previously unselected package glib-networking-services.
Preparing to unpack …/32-glib-networking-services_2.72.0-1_amd64.deb …
Unpacking glib-networking-services (2.72.0-1) …
Selecting previously unselected package session-migration.
Preparing to unpack …/33-session-migration_0.3.6_amd64.deb …
Unpacking session-migration (0.3.6) …
Selecting previously unselected package gsettings-desktop-schemas.
Preparing to unpack …/34-gsettings-desktop-schemas_42.0-1ubuntu1_all.deb …
```

```
Unpacking gsettings-desktop-schemas (42.0-1ubuntu1) …
Selecting previously unselected package glib-networking:amd64.
Preparing to unpack …/35-glib-networking_2.72.0-1_amd64.deb …
Unpacking glib-networking:amd64 (2.72.0-1) …
Selecting previously unselected package gsfonts.
Preparing to unpack …/36-gsfonts_1%3a8.11+urwcyr1.0.7~pre44-4.5_all.deb …
Unpacking gsfonts (1:8.11+urwcyr1.0.7~pre44-4.5) …
Selecting previously unselected package imagemagick-6.q16.
Preparing to unpack
…/37-imagemagick-6.q16_8%3a6.9.11.60+dfsg-1.3ubuntu0.22.04.5_amd64.deb …
Unpacking imagemagick-6.q16 (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) …
Selecting previously unselected package imagemagick.
Preparing to unpack
…/38-imagemagick_8%3a6.9.11.60+dfsg-1.3ubuntu0.22.04.5_amd64.deb …
Unpacking imagemagick (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) …
Selecting previously unselected package librsvg2-common:amd64.
Preparing to unpack …/39-librsvg2-common_2.52.5+dfsg-3ubuntu0.2_amd64.deb …
Unpacking librsvg2-common:amd64 (2.52.5+dfsg-3ubuntu0.2) …
Selecting previously unselected package libgslcblas0:amd64.
Preparing to unpack …/40-libgslcblas0_2.7.1+dfsg-3_amd64.deb …
Unpacking libgslcblas0:amd64 (2.7.1+dfsg-3) …
Selecting previously unselected package libgsl27:amd64.
Preparing to unpack …/41-libgsl27_2.7.1+dfsg-3_amd64.deb …
Unpacking libgsl27:amd64 (2.7.1+dfsg-3) …
Selecting previously unselected package lib2geom1.1.0:amd64.
Preparing to unpack …/42-lib2geom1.1.0_1.1-2build1_amd64.deb …
Unpacking lib2geom1.1.0:amd64 (1.1-2build1) …
Selecting previously unselected package libsigc++-2.0-0v5:amd64.
Preparing to unpack …/43-libsigc++-2.0-0v5_2.10.4-2ubuntu3_amd64.deb …
Unpacking libsigc++-2.0-0v5:amd64 (2.10.4-2ubuntu3) …
Selecting previously unselected package libglibmm-2.4-1v5:amd64.
Preparing to unpack …/44-libglibmm-2.4-1v5_2.66.2-2_amd64.deb …
Unpacking libglibmm-2.4-1v5:amd64 (2.66.2-2) …
Selecting previously unselected package libatkmm-1.6-1v5:amd64.
Preparing to unpack …/45-libatkmm-1.6-1v5_2.28.2-1build1_amd64.deb …
Unpacking libatkmm-1.6-1v5:amd64 (2.28.2-1build1) …
Selecting previously unselected package libcairomm-1.0-1v5:amd64.
Preparing to unpack …/46-libcairomm-1.0-1v5_1.12.2-4build3_amd64.deb …
Unpacking libcairomm-1.0-1v5:amd64 (1.12.2-4build3) …
Selecting previously unselected package librevenge-0.0-0:amd64.
Preparing to unpack …/47-librevenge-0.0-0_0.0.4-6ubuntu7_amd64.deb …
Unpacking librevenge-0.0-0:amd64 (0.0.4-6ubuntu7) …
Selecting previously unselected package libcdr-0.1-1:amd64.
Preparing to unpack …/48-libcdr-0.1-1_0.1.6-2build2_amd64.deb …
Unpacking libcdr-0.1-1:amd64 (0.1.6-2build2) …
Selecting previously unselected package libdbus-glib-1-2:amd64.
Preparing to unpack …/49-libdbus-glib-1-2_0.112-2build1_amd64.deb …
Unpacking libdbus-glib-1-2:amd64 (0.112-2build1) …
```

```
Selecting previously unselected package libgspell-1-common.
Preparing to unpack …/50-libgspell-1-common_1.9.1-4_all.deb …
Unpacking libgspell-1-common (1.9.1-4) …
Selecting previously unselected package libgspell-1-2:amd64.
Preparing to unpack …/51-libgspell-1-2_1.9.1-4_amd64.deb …
Unpacking libgspell-1-2:amd64 (1.9.1-4) …
Selecting previously unselected package libpangomm-1.4-1v5:amd64.
Preparing to unpack …/52-libpangomm-1.4-1v5_2.46.2-1_amd64.deb …
Unpacking libpangomm-1.4-1v5:amd64 (2.46.2-1) …
Selecting previously unselected package libgtkmm-3.0-1v5:amd64.
Preparing to unpack …/53-libgtkmm-3.0-1v5_3.24.5-1build1_amd64.deb …
Unpacking libgtkmm-3.0-1v5:amd64 (3.24.5-1build1) …
Selecting previously unselected package libmagick++-6.q16-8:amd64.
Preparing to unpack
…/54-libmagick++-6.q16-8_8%3a6.9.11.60+dfsg-1.3ubuntu0.22.04.5_amd64.deb …
Unpacking libmagick++-6.q16-8:amd64 (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) …
Selecting previously unselected package libpoppler-glib8:amd64.
Preparing to unpack …/55-libpoppler-glib8_22.02.0-2ubuntu0.6_amd64.deb …
Unpacking libpoppler-glib8:amd64 (22.02.0-2ubuntu0.6) …
Selecting previously unselected package libpotrace0:amd64.
Preparing to unpack …/56-libpotrace0_1.16-2_amd64.deb …
Unpacking libpotrace0:amd64 (1.16-2) …
Selecting previously unselected package libsoup2.4-common.
Preparing to unpack …/57-libsoup2.4-common_2.74.2-3ubuntu0.1_all.deb …
Unpacking libsoup2.4-common (2.74.2-3ubuntu0.1) …
Selecting previously unselected package libsoup2.4-1:amd64.
Preparing to unpack …/58-libsoup2.4-1_2.74.2-3ubuntu0.1_amd64.deb …
Unpacking libsoup2.4-1:amd64 (2.74.2-3ubuntu0.1) …
Selecting previously unselected package libvisio-0.1-1:amd64.
Preparing to unpack …/59-libvisio-0.1-1_0.1.7-1build5_amd64.deb …
Unpacking libvisio-0.1-1:amd64 (0.1.7-1build5) …
Selecting previously unselected package libwpd-0.10-10:amd64.
Preparing to unpack …/60-libwpd-0.10-10_0.10.3-2build1_amd64.deb …
Unpacking libwpd-0.10-10:amd64 (0.10.3-2build1) …
Selecting previously unselected package libwpg-0.3-3:amd64.
Preparing to unpack …/61-libwpg-0.3-3_0.3.3-1build3_amd64.deb …
Unpacking libwpg-0.3-3:amd64 (0.3.3-1build3) …
Selecting previously unselected package inkscape.
Preparing to unpack …/62-inkscape_1.1.2-3ubuntu1_amd64.deb …
Unpacking inkscape (1.1.2-3ubuntu1) …
Selecting previously unselected package libdjvulibre-text.
Preparing to unpack …/63-libdjvulibre-text_3.5.28-2build2_all.deb …
Unpacking libdjvulibre-text (3.5.28-2build2) …
Selecting previously unselected package libdjvulibre21:amd64.
Preparing to unpack …/64-libdjvulibre21_3.5.28-2build2_amd64.deb …
Unpacking libdjvulibre21:amd64 (3.5.28-2build2) …
Selecting previously unselected package libjxr0:amd64.
Preparing to unpack …/65-libjxr0_1.2~git20170615.f752187-5_amd64.deb …
```

Unpacking libjxr0:amd64 (1.2~git20170615.f752187-5) …
Selecting previously unselected package libjxr-tools.
Preparing to unpack …/66-libjxr-tools_1.2~git20170615.f752187-5_amd64.deb …
Unpacking libjxr-tools (1.2~git20170615.f752187-5) …
Selecting previously unselected package libwmflite-0.2-7:amd64.
Preparing to unpack …/67-libwmflite-0.2-7_0.2.12-5ubuntu1_amd64.deb …
Unpacking libwmflite-0.2-7:amd64 (0.2.12-5ubuntu1) …
Selecting previously unselected package libmagickcore-6.q16-6-extra:amd64.
Preparing to unpack …/68-libmagickcore-6.q16-6-extra_8%3a6.9.11.60+dfsg-
1.3ubuntu0.22.04.5_amd64.deb …
Unpacking libmagickcore-6.q16-6-extra:amd64
(8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) …
Selecting previously unselected package libwmf-0.2-7:amd64.
Preparing to unpack …/69-libwmf-0.2-7_0.2.12-5ubuntu1_amd64.deb …
Unpacking libwmf-0.2-7:amd64 (0.2.12-5ubuntu1) …
Selecting previously unselected package libwmf-bin.
Preparing to unpack …/70-libwmf-bin_0.2.12-5ubuntu1_amd64.deb …
Unpacking libwmf-bin (0.2.12-5ubuntu1) …
Selecting previously unselected package python3-soupsieve.
Preparing to unpack …/71-python3-soupsieve_2.3.1-1_all.deb …
Unpacking python3-soupsieve (2.3.1-1) …
Selecting previously unselected package python3-bs4.
Preparing to unpack …/72-python3-bs4_4.10.0-2_all.deb …
Unpacking python3-bs4 (4.10.0-2) …
Selecting previously unselected package python3-chardet.
Preparing to unpack …/73-python3-chardet_4.0.0-1_all.deb …
Unpacking python3-chardet (4.0.0-1) …
Selecting previously unselected package python3-webencodings.
Preparing to unpack …/74-python3-webencodings_0.5.1-4_all.deb …
Unpacking python3-webencodings (0.5.1-4) …
Selecting previously unselected package python3-html5lib.
Preparing to unpack …/75-python3-html5lib_1.1-3_all.deb …
Unpacking python3-html5lib (1.1-3) …
Selecting previously unselected package python3-lxml:amd64.
Preparing to unpack …/76-python3-lxml_4.8.0-1build1_amd64.deb …
Unpacking python3-lxml:amd64 (4.8.0-1build1) …
Selecting previously unselected package python3-numpy.
Preparing to unpack …/77-python3-numpy_1%3a1.21.5-1ubuntu22.04.1_amd64.deb …
Unpacking python3-numpy (1:1.21.5-1ubuntu22.04.1) …
Selecting previously unselected package python3-scour.
Preparing to unpack …/78-python3-scour_0.38.2-2_all.deb …
Unpacking python3-scour (0.38.2-2) …
Setting up libtext-iconv-perl (1.7-7build3) …
Setting up session-migration (0.3.6) …
Created symlink /etc/systemd/user/graphical-session-pre.target.wants/session-
migration.service → /usr/lib/systemd/user/session-migration.service.
Setting up imagemagick-6-common (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) …
Setting up libproxy1v5:amd64 (0.4.17-2) …

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Setting up libpoppler-glib8:amd64 (22.02.0-2ubuntu0.6) …
Setting up fonts-noto-mono (20201225-1build1) …
Setting up libwmflite-0.2-7:amd64 (0.2.12-5ubuntu1) …
Setting up libgslcblas0:amd64 (2.7.1+dfsg-3) …
Setting up libgspell-1-common (1.9.1-4) …
Setting up dictionaries-common (1.28.14) …
Setting up gawk (1:5.1.0-1ubuntu0.1) …
Setting up libaspell15:amd64 (0.60.8-4build1) …
Setting up libijs-0.35:amd64 (0.35-15build2) …
Setting up libjxr0:amd64 (1.2~git20170615.f752187-5) …
Setting up libgsl27:amd64 (2.7.1+dfsg-3) …
Setting up libnetpbm10 (2:10.0-15.4) …
Setting up fonts-urw-base35 (20200910-1) …
Setting up python3-webencodings (0.5.1-4) …
Setting up librevenge-0.0-0:amd64 (0.0.4-6ubuntu7) …
Setting up poppler-data (0.4.11-1) …
Setting up python3-chardet (4.0.0-1) …
Setting up libwmf-0.2-7:amd64 (0.2.12-5ubuntu1) …
Setting up libjbig2dec0:amd64 (0.19-3build2) …
Setting up libsigc++-2.0-0v5:amd64 (2.10.4-2ubuntu3) …
Setting up libdbus-glib-1-2:amd64 (0.112-2build1) …
Setting up gsfonts (1:8.11+urwcyr1.0.7~pre44-4.5) …
Setting up libidn12:amd64 (1.38-4ubuntu1) …
Setting up lib2geom1.1.0:amd64 (1.1-2build1) …
Setting up aspell (0.60.8-4build1) …
Setting up librsvg2-common:amd64 (2.52.5+dfsg-3ubuntu0.2) …
Setting up netpbm (2:10.0-15.4) …
Setting up python3-html5lib (1.1-3) …
Setting up python3-numpy (1:1.21.5-1ubuntu22.04.1) …
Setting up libfftw3-double3:amd64 (3.3.8-2ubuntu8) …
Setting up libsoup2.4-common (2.74.2-3ubuntu0.1) …
Setting up liblqr-1-0:amd64 (0.4.2-2.1) …
Setting up python3-lxml:amd64 (4.8.0-1build1) …
Setting up hunspell-en-us (1:2020.12.07-2) …
Setting up fonts-droid-fallback (1:6.0.1r16-1.1build1) …
Setting up python3-scour (0.38.2-2) …
Setting up libdjvulibre-text (3.5.28-2build2) …
Setting up libhunspell-1.7-0:amd64 (1.7.0-4build1) …
Setting up glib-networking-common (2.72.0-1) …
Setting up libwpd-0.10-10:amd64 (0.10.3-2build1) …
Setting up python3-soupsieve (2.3.1-1) …
Setting up libvisio-0.1-1:amd64 (0.1.7-1build5) …
Setting up libpotrace0:amd64 (1.16-2) …
Setting up libgs9-common (9.55.0~dfsg1-0ubuntu5.10) …
Setting up gsettings-desktop-schemas (42.0-1ubuntu1) …
Setting up glib-networking-services (2.72.0-1) …
Setting up libglibmm-2.4-1v5:amd64 (2.66.2-2) …
Setting up libwmf-bin (0.2.12-5ubuntu1) …
```

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Setting up libjxr-tools (1.2~git20170615.f752187-5) …
Setting up libgs9:amd64 (9.55.0~dfsg1-0ubuntu5.10) …
Setting up libenchant-2-2:amd64 (2.3.2-1ubuntu2) …
Setting up libdjvulibre21:amd64 (3.5.28-2build2) …
Setting up aspell-en (2018.04.16-0-1) …
Setting up enchant-2 (2.3.2-1ubuntu2) …
Setting up libcdr-0.1-1:amd64 (0.1.6-2build2) …
Setting up ghostscript (9.55.0~dfsg1-0ubuntu5.10) …
Setting up fig2dev (1:3.2.8b-1) …
Setting up python3-bs4 (4.10.0-2) …
Setting up libcairomm-1.0-1v5:amd64 (1.12.2-4build3) …
Setting up libmagickcore-6.q16-6:amd64 (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) …
Setting up libpangomm-1.4-1v5:amd64 (2.46.2-1) …
Setting up libwpg-0.3-3:amd64 (0.3.3-1build3) …
Setting up libmagickwand-6.q16-6:amd64 (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) …
Setting up libatkmm-1.6-1v5:amd64 (2.28.2-1build1) …
Setting up libmagick++-6.q16-8:amd64 (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) …
Setting up libgspell-1-2:amd64 (1.9.1-4) …
Setting up libmagickcore-6.q16-6-extra:amd64
(8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) …
Setting up libimage-magick-q16-perl (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) …
Setting up libgtkmm-3.0-1v5:amd64 (3.24.5-1build1) …
Setting up imagemagick-6.q16 (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) …
update-alternatives: using /usr/bin/compare-im6.q16 to provide /usr/bin/compare
(compare) in auto mode
update-alternatives: using /usr/bin/compare-im6.q16 to provide /usr/bin/compare-
im6 (compare-im6) in auto mode
update-alternatives: using /usr/bin/animate-im6.q16 to provide /usr/bin/animate
(animate) in auto mode
update-alternatives: using /usr/bin/animate-im6.q16 to provide /usr/bin/animate-
im6 (animate-im6) in auto mode
update-alternatives: using /usr/bin/convert-im6.q16 to provide /usr/bin/convert
(convert) in auto mode
update-alternatives: using /usr/bin/convert-im6.q16 to provide /usr/bin/convert-
im6 (convert-im6) in auto mode
update-alternatives: using /usr/bin/composite-im6.q16 to provide
/usr/bin/composite (composite) in auto mode
update-alternatives: using /usr/bin/composite-im6.q16 to provide
/usr/bin/composite-im6 (composite-im6) in auto mode
update-alternatives: using /usr/bin/conjure-im6.q16 to provide /usr/bin/conjure
(conjure) in auto mode
update-alternatives: using /usr/bin/conjure-im6.q16 to provide /usr/bin/conjure-
im6 (conjure-im6) in auto mode
update-alternatives: using /usr/bin/import-im6.q16 to provide /usr/bin/import
(import) in auto mode
update-alternatives: using /usr/bin/import-im6.q16 to provide /usr/bin/import-
im6 (import-im6) in auto mode
update-alternatives: using /usr/bin/identify-im6.q16 to provide
```

```
/usr/bin/identify (identify) in auto mode
update-alternatives: using /usr/bin/identify-im6.q16 to provide
/usr/bin/identify-im6 (identify-im6) in auto mode
update-alternatives: using /usr/bin/stream-im6.q16 to provide /usr/bin/stream
(stream) in auto mode
update-alternatives: using /usr/bin/stream-im6.q16 to provide /usr/bin/stream-
im6 (stream-im6) in auto mode
update-alternatives: using /usr/bin/display-im6.q16 to provide /usr/bin/display
(display) in auto mode
update-alternatives: using /usr/bin/display-im6.q16 to provide /usr/bin/display-
im6 (display-im6) in auto mode
update-alternatives: using /usr/bin/montage-im6.q16 to provide /usr/bin/montage
(montage) in auto mode
update-alternatives: using /usr/bin/montage-im6.q16 to provide /usr/bin/montage-
im6 (montage-im6) in auto mode
update-alternatives: using /usr/bin/mogrify-im6.q16 to provide /usr/bin/mogrify
(mogrify) in auto mode
update-alternatives: using /usr/bin/mogrify-im6.q16 to provide /usr/bin/mogrify-
im6 (mogrify-im6) in auto mode
Setting up libimage-magick-perl (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) …
Setting up imagemagick (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) …
Processing triggers for libgdk-pixbuf-2.0-0:amd64 (2.42.8+dfsg-1ubuntu0.3) …
Processing triggers for mailcap (3.70+nmu1ubuntu1) …
Processing triggers for fontconfig (2.13.1-4.2ubuntu5) …
Processing triggers for hicolor-icon-theme (0.17-2) …
Processing triggers for libglib2.0-0:amd64 (2.72.4-0ubuntu2.4) …
Processing triggers for libc-bin (2.35-0ubuntu3.8) …
/sbin/ldconfig.real: /usr/local/lib/libtbbbind.so.3 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtcm_debug.so.1 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libur_adapter_opencl.so.0 is not a symbolic
link

/sbin/ldconfig.real: /usr/local/lib/libumf.so.0 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libur_loader.so.0 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libhwloc.so.15 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbmalloc_proxy.so.2 is not a symbolic
link

/sbin/ldconfig.real: /usr/local/lib/libtcm.so.1 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbbind_2_5.so.3 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbbind_2_0.so.3 is not a symbolic link
```

```
/sbin/ldconfig.real: /usr/local/lib/libtbb.so.12 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libur_adapter_level_zero.so.0 is not a
symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbmalloc.so.2 is not a symbolic link

Processing triggers for man-db (2.10.2-1) …
Setting up glib-networking:amd64 (2.72.0-1) …
Setting up libsoup2.4-1:amd64 (2.74.2-3ubuntu0.1) …
Setting up inkscape (1.1.2-3ubuntu1) …
Processing triggers for dictionaries-common (1.28.14) …
aspell-autobuildhash: processing: en [en-common].
aspell-autobuildhash: processing: en [en-variant_0].
aspell-autobuildhash: processing: en [en-variant_1].
aspell-autobuildhash: processing: en [en-variant_2].
aspell-autobuildhash: processing: en [en-w_accents-only].
aspell-autobuildhash: processing: en [en-wo_accents-only].
aspell-autobuildhash: processing: en [en_AU-variant_0].
aspell-autobuildhash: processing: en [en_AU-variant_1].
aspell-autobuildhash: processing: en [en_AU-w_accents-only].
aspell-autobuildhash: processing: en [en_AU-wo_accents-only].
aspell-autobuildhash: processing: en [en_CA-variant_0].
aspell-autobuildhash: processing: en [en_CA-variant_1].
aspell-autobuildhash: processing: en [en_CA-w_accents-only].
aspell-autobuildhash: processing: en [en_CA-wo_accents-only].
aspell-autobuildhash: processing: en [en_GB-ise-w_accents-only].
aspell-autobuildhash: processing: en [en_GB-ise-wo_accents-only].
aspell-autobuildhash: processing: en [en_GB-ize-w_accents-only].
aspell-autobuildhash: processing: en [en_GB-ize-wo_accents-only].
aspell-autobuildhash: processing: en [en_GB-variant_0].
aspell-autobuildhash: processing: en [en_GB-variant_1].
aspell-autobuildhash: processing: en [en_US-w_accents-only].
aspell-autobuildhash: processing: en [en_US-wo_accents-only].
Processing triggers for libc-bin (2.35-0ubuntu3.8) …
/sbin/ldconfig.real: /usr/local/lib/libtbbbind.so.3 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtcm_debug.so.1 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libur_adapter_opencl.so.0 is not a symbolic
link

/sbin/ldconfig.real: /usr/local/lib/libumf.so.0 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libur_loader.so.0 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libhwloc.so.15 is not a symbolic link
```

```
/sbin/ldconfig.real: /usr/local/lib/libtbbmalloc_proxy.so.2 is not a symbolic
link

/sbin/ldconfig.real: /usr/local/lib/libtcm.so.1 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbbind_2_5.so.3 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbbind_2_0.so.3 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbb.so.12 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libur_adapter_level_zero.so.0 is not a
symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbmalloc.so.2 is not a symbolic link


Reading package lists… Done
Building dependency tree… Done
Reading state information… Done
The following additional packages will be installed:
  dvisvgm fonts-lato fonts-lmodern fonts-texgyre libapache-pom-java libcommons-
logging-java
  libcommons-parent-java libfontbox-java libfontenc1 libkpathsea6 libpdfbox-java
libptexenc1
  libruby3.0 libsynctex2 libteckit0 libtexlua53 libtexluajit2 libwoff1
libzzip-0-13 lmodern
  preview-latex-style rake ruby ruby-net-telnet ruby-rubygems ruby-webrick ruby-
xmlrpc ruby3.0
  rubygems-integration t1utils teckit tex-common tex-gyre texlive-base texlive-
binaries
  texlive-latex-base texlive-latex-recommended texlive-pictures texlive-plain-
generic tipa
  xfonts-encodings xfonts-utils
Suggested packages:
  libavalon-framework-java libcommons-logging-java-doc libexcalibur-logkit-java
liblog4j1.2-java ri
  ruby-dev bundler debhelper perl-tk xpdf | pdf-viewer xzdec texlive-fonts-
recommended-doc
  texlive-latex-base-doc python3-pygments icc-profiles libfile-which-perl
  libspreadsheet-parseexcel-perl texlive-latex-extra-doc texlive-latex-
recommended-doc
  texlive-luatex texlive-pstricks dot2tex prerex texlive-pictures-doc vprerex
default-jre-headless
  tipa-doc
The following NEW packages will be installed:
  dvisvgm fonts-lato fonts-lmodern fonts-texgyre libapache-pom-java libcommons-
logging-java
```

```
  libcommons-parent-java libfontbox-java libfontenc1 libkpathsea6 libpdfbox-java
libptexenc1
  libruby3.0 libsynctex2 libteckit0 libtexlua53 libtexluajit2 libwoff1
libzzip-0-13 lmodern
  preview-latex-style rake ruby ruby-net-telnet ruby-rubygems ruby-webrick ruby-
xmlrpc ruby3.0
  rubygems-integration t1utils teckit tex-common tex-gyre texlive-base texlive-
binaries
  texlive-fonts-recommended texlive-latex-base texlive-latex-extra texlive-
latex-recommended
  texlive-pictures texlive-plain-generic texlive-xetex tipa xfonts-encodings
xfonts-utils
0 upgraded, 45 newly installed, 0 to remove and 25 not upgraded.
Need to get 165 MB of archives.
After this operation, 509 MB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu jammy/main amd64 fonts-lato all 2.0-2.1
[2,696 kB]
Get:2 http://archive.ubuntu.com/ubuntu jammy/universe amd64 tex-common all 6.17
[33.7 kB]
Get:3 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libkpathsea6
amd64 2021.20210626.59705-1ubuntu0.2 [60.4 kB]
Get:4 http://archive.ubuntu.com/ubuntu jammy/main amd64 libwoff1 amd64
1.0.2-1build4 [45.2 kB]
Get:5 http://archive.ubuntu.com/ubuntu jammy/universe amd64 dvisvgm amd64
2.13.1-1 [1,221 kB]
Get:6 http://archive.ubuntu.com/ubuntu jammy/universe amd64 fonts-lmodern all
2.004.5-6.1 [4,532 kB]
Get:7 http://archive.ubuntu.com/ubuntu jammy/universe amd64 fonts-texgyre all
20180621-3.1 [10.2 MB]
Get:8 http://archive.ubuntu.com/ubuntu jammy/universe amd64 libapache-pom-java
all 18-1 [4,720 B]
Get:9 http://archive.ubuntu.com/ubuntu jammy/universe amd64 libcommons-parent-
java all 43-1 [10.8 kB]
Get:10 http://archive.ubuntu.com/ubuntu jammy/universe amd64 libcommons-logging-
java all 1.2-2 [60.3 kB]
Get:11 http://archive.ubuntu.com/ubuntu jammy/main amd64 libfontenc1 amd64
1:1.1.4-1build3 [14.7 kB]
Get:12 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libptexenc1
amd64 2021.20210626.59705-1ubuntu0.2 [39.1 kB]
Get:13 http://archive.ubuntu.com/ubuntu jammy/main amd64 rubygems-integration
all 1.18 [5,336 B]
Get:14 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 ruby3.0 amd64
3.0.2-7ubuntu2.8 [50.1 kB]
Get:15 http://archive.ubuntu.com/ubuntu jammy/main amd64 ruby-rubygems all
3.3.5-2 [228 kB]
Get:16 http://archive.ubuntu.com/ubuntu jammy/main amd64 ruby amd64 1:3.0~exp1
[5,100 B]
Get:17 http://archive.ubuntu.com/ubuntu jammy/main amd64 rake all 13.0.6-2 [61.7
```

kB]
Get:18 http://archive.ubuntu.com/ubuntu jammy/main amd64 ruby-net-telnet all
0.1.1-2 [12.6 kB]
Get:19 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 ruby-webrick
all 1.7.0-3ubuntu0.1 [52.1 kB]
Get:20 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 ruby-xmlrpc all
0.3.2-1ubuntu0.1 [24.9 kB]
Get:21 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libruby3.0
amd64 3.0.2-7ubuntu2.8 [5,113 kB]
Get:22 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libsynctex2
amd64 2021.20210626.59705-1ubuntu0.2 [55.6 kB]
Get:23 http://archive.ubuntu.com/ubuntu jammy/universe amd64 libteckit0 amd64
2.5.11+ds1-1 [421 kB]
Get:24 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libtexlua53
amd64 2021.20210626.59705-1ubuntu0.2 [120 kB]
Get:25 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libtexluajit2
amd64 2021.20210626.59705-1ubuntu0.2 [267 kB]
Get:26 http://archive.ubuntu.com/ubuntu jammy/universe amd64 libzzip-0-13 amd64
0.13.72+dfsg.1-1.1 [27.0 kB]
Get:27 http://archive.ubuntu.com/ubuntu jammy/main amd64 xfonts-encodings all
1:1.0.5-0ubuntu2 [578 kB]
Get:28 http://archive.ubuntu.com/ubuntu jammy/main amd64 xfonts-utils amd64
1:7.7+6build2 [94.6 kB]
Get:29 http://archive.ubuntu.com/ubuntu jammy/universe amd64 lmodern all
2.004.5-6.1 [9,471 kB]
Get:30 http://archive.ubuntu.com/ubuntu jammy/universe amd64 preview-latex-style
all 12.2-1ubuntu1 [185 kB]
Get:31 http://archive.ubuntu.com/ubuntu jammy/main amd64 t1utils amd64
1.41-4build2 [61.3 kB]
Get:32 http://archive.ubuntu.com/ubuntu jammy/universe amd64 teckit amd64
2.5.11+ds1-1 [699 kB]
Get:33 http://archive.ubuntu.com/ubuntu jammy/universe amd64 tex-gyre all
20180621-3.1 [6,209 kB]
Get:34 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 texlive-
binaries amd64 2021.20210626.59705-1ubuntu0.2 [9,860 kB]
Get:35 http://archive.ubuntu.com/ubuntu jammy/universe amd64 texlive-base all
2021.20220204-1 [21.0 MB]
Get:36 http://archive.ubuntu.com/ubuntu jammy/universe amd64 texlive-fonts-
recommended all 2021.20220204-1 [4,972 kB]
Get:37 http://archive.ubuntu.com/ubuntu jammy/universe amd64 texlive-latex-base
all 2021.20220204-1 [1,128 kB]
Get:38 http://archive.ubuntu.com/ubuntu jammy/universe amd64 libfontbox-java all
1:1.8.16-2 [207 kB]
Get:39 http://archive.ubuntu.com/ubuntu jammy/universe amd64 libpdfbox-java all
1:1.8.16-2 [5,199 kB]
Get:40 http://archive.ubuntu.com/ubuntu jammy/universe amd64 texlive-latex-
recommended all 2021.20220204-1 [14.4 MB]
Get:41 http://archive.ubuntu.com/ubuntu jammy/universe amd64 texlive-pictures

all 2021.20220204-1 [8,720 kB]
Get:42 http://archive.ubuntu.com/ubuntu jammy/universe amd64 texlive-latex-extra
all 2021.20220204-1 [13.9 MB]
Get:43 http://archive.ubuntu.com/ubuntu jammy/universe amd64 texlive-plain-
generic all 2021.20220204-1 [27.5 MB]
Get:44 http://archive.ubuntu.com/ubuntu jammy/universe amd64 tipa all 2:1.3-21
[2,967 kB]
Get:45 http://archive.ubuntu.com/ubuntu jammy/universe amd64 texlive-xetex all
2021.20220204-1 [12.4 MB]
Fetched 165 MB in 8s (21.5 MB/s)
Extracting templates from packages: 100%
Preconfiguring packages …
Selecting previously unselected package fonts-lato.
(Reading database … 132430 files and directories currently installed.)
Preparing to unpack …/00-fonts-lato_2.0-2.1_all.deb …
Unpacking fonts-lato (2.0-2.1) …
Selecting previously unselected package tex-common.
Preparing to unpack …/01-tex-common_6.17_all.deb …
Unpacking tex-common (6.17) …
Selecting previously unselected package libkpathsea6:amd64.
Preparing to unpack …/02-libkpathsea6_2021.20210626.59705-1ubuntu0.2_amd64.deb
…
Unpacking libkpathsea6:amd64 (2021.20210626.59705-1ubuntu0.2) …
Selecting previously unselected package libwoff1:amd64.
Preparing to unpack …/03-libwoff1_1.0.2-1build4_amd64.deb …
Unpacking libwoff1:amd64 (1.0.2-1build4) …
Selecting previously unselected package dvisvgm.
Preparing to unpack …/04-dvisvgm_2.13.1-1_amd64.deb …
Unpacking dvisvgm (2.13.1-1) …
Selecting previously unselected package fonts-lmodern.
Preparing to unpack …/05-fonts-lmodern_2.004.5-6.1_all.deb …
Unpacking fonts-lmodern (2.004.5-6.1) …
Selecting previously unselected package fonts-texgyre.
Preparing to unpack …/06-fonts-texgyre_20180621-3.1_all.deb …
Unpacking fonts-texgyre (20180621-3.1) …
Selecting previously unselected package libapache-pom-java.
Preparing to unpack …/07-libapache-pom-java_18-1_all.deb …
Unpacking libapache-pom-java (18-1) …
Selecting previously unselected package libcommons-parent-java.
Preparing to unpack …/08-libcommons-parent-java_43-1_all.deb …
Unpacking libcommons-parent-java (43-1) …
Selecting previously unselected package libcommons-logging-java.
Preparing to unpack …/09-libcommons-logging-java_1.2-2_all.deb …
Unpacking libcommons-logging-java (1.2-2) …
Selecting previously unselected package libfontenc1:amd64.
Preparing to unpack …/10-libfontenc1_1%3a1.1.4-1build3_amd64.deb …
Unpacking libfontenc1:amd64 (1:1.1.4-1build3) …
Selecting previously unselected package libptexenc1:amd64.

```
Preparing to unpack …/11-libptexenc1_2021.20210626.59705-1ubuntu0.2_amd64.deb
…
Unpacking libptexenc1:amd64 (2021.20210626.59705-1ubuntu0.2) …
Selecting previously unselected package rubygems-integration.
Preparing to unpack …/12-rubygems-integration_1.18_all.deb …
Unpacking rubygems-integration (1.18) …
Selecting previously unselected package ruby3.0.
Preparing to unpack …/13-ruby3.0_3.0.2-7ubuntu2.8_amd64.deb …
Unpacking ruby3.0 (3.0.2-7ubuntu2.8) …
Selecting previously unselected package ruby-rubygems.
Preparing to unpack …/14-ruby-rubygems_3.3.5-2_all.deb …
Unpacking ruby-rubygems (3.3.5-2) …
Selecting previously unselected package ruby.
Preparing to unpack …/15-ruby_1%3a3.0~exp1_amd64.deb …
Unpacking ruby (1:3.0~exp1) …
Selecting previously unselected package rake.
Preparing to unpack …/16-rake_13.0.6-2_all.deb …
Unpacking rake (13.0.6-2) …
Selecting previously unselected package ruby-net-telnet.
Preparing to unpack …/17-ruby-net-telnet_0.1.1-2_all.deb …
Unpacking ruby-net-telnet (0.1.1-2) …
Selecting previously unselected package ruby-webrick.
Preparing to unpack …/18-ruby-webrick_1.7.0-3ubuntu0.1_all.deb …
Unpacking ruby-webrick (1.7.0-3ubuntu0.1) …
Selecting previously unselected package ruby-xmlrpc.
Preparing to unpack …/19-ruby-xmlrpc_0.3.2-1ubuntu0.1_all.deb …
Unpacking ruby-xmlrpc (0.3.2-1ubuntu0.1) …
Selecting previously unselected package libruby3.0:amd64.
Preparing to unpack …/20-libruby3.0_3.0.2-7ubuntu2.8_amd64.deb …
Unpacking libruby3.0:amd64 (3.0.2-7ubuntu2.8) …
Selecting previously unselected package libsynctex2:amd64.
Preparing to unpack …/21-libsynctex2_2021.20210626.59705-1ubuntu0.2_amd64.deb
…
Unpacking libsynctex2:amd64 (2021.20210626.59705-1ubuntu0.2) …
Selecting previously unselected package libteckit0:amd64.
Preparing to unpack …/22-libteckit0_2.5.11+ds1-1_amd64.deb …
Unpacking libteckit0:amd64 (2.5.11+ds1-1) …
Selecting previously unselected package libtexlua53:amd64.
Preparing to unpack …/23-libtexlua53_2021.20210626.59705-1ubuntu0.2_amd64.deb
…
Unpacking libtexlua53:amd64 (2021.20210626.59705-1ubuntu0.2) …
Selecting previously unselected package libtexluajit2:amd64.
Preparing to unpack
…/24-libtexluajit2_2021.20210626.59705-1ubuntu0.2_amd64.deb …
Unpacking libtexluajit2:amd64 (2021.20210626.59705-1ubuntu0.2) …
Selecting previously unselected package libzzip-0-13:amd64.
Preparing to unpack …/25-libzzip-0-13_0.13.72+dfsg.1-1.1_amd64.deb …
Unpacking libzzip-0-13:amd64 (0.13.72+dfsg.1-1.1) …
```

```
Selecting previously unselected package xfonts-encodings.
Preparing to unpack …/26-xfonts-encodings_1%3a1.0.5-0ubuntu2_all.deb …
Unpacking xfonts-encodings (1:1.0.5-0ubuntu2) …
Selecting previously unselected package xfonts-utils.
Preparing to unpack …/27-xfonts-utils_1%3a7.7+6build2_amd64.deb …
Unpacking xfonts-utils (1:7.7+6build2) …
Selecting previously unselected package lmodern.
Preparing to unpack …/28-lmodern_2.004.5-6.1_all.deb …
Unpacking lmodern (2.004.5-6.1) …
Selecting previously unselected package preview-latex-style.
Preparing to unpack …/29-preview-latex-style_12.2-1ubuntu1_all.deb …
Unpacking preview-latex-style (12.2-1ubuntu1) …
Selecting previously unselected package t1utils.
Preparing to unpack …/30-t1utils_1.41-4build2_amd64.deb …
Unpacking t1utils (1.41-4build2) …
Selecting previously unselected package teckit.
Preparing to unpack …/31-teckit_2.5.11+ds1-1_amd64.deb …
Unpacking teckit (2.5.11+ds1-1) …
Selecting previously unselected package tex-gyre.
Preparing to unpack …/32-tex-gyre_20180621-3.1_all.deb …
Unpacking tex-gyre (20180621-3.1) …
Selecting previously unselected package texlive-binaries.
Preparing to unpack …/33-texlive-
binaries_2021.20210626.59705-1ubuntu0.2_amd64.deb …
Unpacking texlive-binaries (2021.20210626.59705-1ubuntu0.2) …
Selecting previously unselected package texlive-base.
Preparing to unpack …/34-texlive-base_2021.20220204-1_all.deb …
Unpacking texlive-base (2021.20220204-1) …
Selecting previously unselected package texlive-fonts-recommended.
Preparing to unpack …/35-texlive-fonts-recommended_2021.20220204-1_all.deb …
Unpacking texlive-fonts-recommended (2021.20220204-1) …
Selecting previously unselected package texlive-latex-base.
Preparing to unpack …/36-texlive-latex-base_2021.20220204-1_all.deb …
Unpacking texlive-latex-base (2021.20220204-1) …
Selecting previously unselected package libfontbox-java.
Preparing to unpack …/37-libfontbox-java_1%3a1.8.16-2_all.deb …
Unpacking libfontbox-java (1:1.8.16-2) …
Selecting previously unselected package libpdfbox-java.
Preparing to unpack …/38-libpdfbox-java_1%3a1.8.16-2_all.deb …
Unpacking libpdfbox-java (1:1.8.16-2) …
Selecting previously unselected package texlive-latex-recommended.
Preparing to unpack …/39-texlive-latex-recommended_2021.20220204-1_all.deb …
Unpacking texlive-latex-recommended (2021.20220204-1) …
Selecting previously unselected package texlive-pictures.
Preparing to unpack …/40-texlive-pictures_2021.20220204-1_all.deb …
Unpacking texlive-pictures (2021.20220204-1) …
Selecting previously unselected package texlive-latex-extra.
Preparing to unpack …/41-texlive-latex-extra_2021.20220204-1_all.deb …
```

```
Unpacking texlive-latex-extra (2021.20220204-1) …
Selecting previously unselected package texlive-plain-generic.
Preparing to unpack …/42-texlive-plain-generic_2021.20220204-1_all.deb …
Unpacking texlive-plain-generic (2021.20220204-1) …
Selecting previously unselected package tipa.
Preparing to unpack …/43-tipa_2%3a1.3-21_all.deb …
Unpacking tipa (2:1.3-21) …
Selecting previously unselected package texlive-xetex.
Preparing to unpack …/44-texlive-xetex_2021.20220204-1_all.deb …
Unpacking texlive-xetex (2021.20220204-1) …
Setting up fonts-lato (2.0-2.1) …
Setting up libwoff1:amd64 (1.0.2-1build4) …
Setting up libtexlua53:amd64 (2021.20210626.59705-1ubuntu0.2) …
Setting up libtexluajit2:amd64 (2021.20210626.59705-1ubuntu0.2) …
Setting up libfontbox-java (1:1.8.16-2) …
Setting up rubygems-integration (1.18) …
Setting up libzzip-0-13:amd64 (0.13.72+dfsg.1-1.1) …
Setting up tex-common (6.17) …
update-language: texlive-base not installed and configured, doing nothing!
Setting up libfontenc1:amd64 (1:1.1.4-1build3) …
Setting up libteckit0:amd64 (2.5.11+ds1-1) …
Setting up libapache-pom-java (18-1) …
Setting up ruby-net-telnet (0.1.1-2) …
Setting up xfonts-encodings (1:1.0.5-0ubuntu2) …
Setting up t1utils (1.41-4build2) …
Setting up fonts-texgyre (20180621-3.1) …
Setting up libkpathsea6:amd64 (2021.20210626.59705-1ubuntu0.2) …
Setting up ruby-webrick (1.7.0-3ubuntu0.1) …
Setting up fonts-lmodern (2.004.5-6.1) …
Setting up ruby-xmlrpc (0.3.2-1ubuntu0.1) …
Setting up libsynctex2:amd64 (2021.20210626.59705-1ubuntu0.2) …
Setting up teckit (2.5.11+ds1-1) …
Setting up libpdfbox-java (1:1.8.16-2) …
Setting up preview-latex-style (12.2-1ubuntu1) …
Setting up libcommons-parent-java (43-1) …
Setting up dvisvgm (2.13.1-1) …
Setting up libcommons-logging-java (1.2-2) …
Setting up xfonts-utils (1:7.7+6build2) …
Setting up libptexenc1:amd64 (2021.20210626.59705-1ubuntu0.2) …
Setting up texlive-binaries (2021.20210626.59705-1ubuntu0.2) …
update-alternatives: using /usr/bin/xdvi-xaw to provide /usr/bin/xdvi.bin
(xdvi.bin) in auto mode
update-alternatives: using /usr/bin/bibtex.original to provide /usr/bin/bibtex
(bibtex) in auto mode
Setting up lmodern (2.004.5-6.1) …
Setting up texlive-base (2021.20220204-1) …
/usr/bin/ucfr
/usr/bin/ucfr
```

```
/usr/bin/ucfr
/usr/bin/ucfr
mktexlsr: Updating /var/lib/texmf/ls-R-TEXLIVEDIST…
mktexlsr: Updating /var/lib/texmf/ls-R-TEXMFMAIN…
mktexlsr: Updating /var/lib/texmf/ls-R…
mktexlsr: Done.
tl-paper: setting paper size for dvips to a4:
/var/lib/texmf/dvips/config/config-paper.ps
tl-paper: setting paper size for dvipdfmx to a4:
/var/lib/texmf/dvipdfmx/dvipdfmx-paper.cfg
tl-paper: setting paper size for xdvi to a4: /var/lib/texmf/xdvi/XDvi-paper
tl-paper: setting paper size for pdftex to a4: /var/lib/texmf/tex/generic/tex-
ini-files/pdftexconfig.tex
Setting up tex-gyre (20180621-3.1) …
Setting up texlive-plain-generic (2021.20220204-1) …
Setting up texlive-latex-base (2021.20220204-1) …
Setting up texlive-latex-recommended (2021.20220204-1) …
Setting up texlive-pictures (2021.20220204-1) …
Setting up texlive-fonts-recommended (2021.20220204-1) …
Setting up tipa (2:1.3-21) …
Setting up texlive-latex-extra (2021.20220204-1) …
Setting up texlive-xetex (2021.20220204-1) …
Setting up rake (13.0.6-2) …
Setting up libruby3.0:amd64 (3.0.2-7ubuntu2.8) …
Setting up ruby3.0 (3.0.2-7ubuntu2.8) …
Setting up ruby (1:3.0~exp1) …
Setting up ruby-rubygems (3.3.5-2) …
Processing triggers for man-db (2.10.2-1) …
Processing triggers for mailcap (3.70+nmu1ubuntu1) …
Processing triggers for fontconfig (2.13.1-4.2ubuntu5) …
Processing triggers for libc-bin (2.35-0ubuntu3.8) …
/sbin/ldconfig.real: /usr/local/lib/libtbbbind.so.3 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtcm_debug.so.1 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libur_adapter_opencl.so.0 is not a symbolic
link

/sbin/ldconfig.real: /usr/local/lib/libumf.so.0 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libur_loader.so.0 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libhwloc.so.15 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbmalloc_proxy.so.2 is not a symbolic
link

/sbin/ldconfig.real: /usr/local/lib/libtcm.so.1 is not a symbolic link
```

```
/sbin/ldconfig.real: /usr/local/lib/libtbbbind_2_5.so.3 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbbind_2_0.so.3 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbb.so.12 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libur_adapter_level_zero.so.0 is not a
symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbmalloc.so.2 is not a symbolic link

Processing triggers for tex-common (6.17) …
Running updmap-sys. This may take some time… done.
Running mktexlsr /var/lib/texmf … done.
Building format(s) --all.
        This may take some time… done.
```

5.2 Mount Google Drive

```
[29]: from google.colab import drive
      drive.mount('/content/drive')
```

```
Mounted at /content/drive
```

5.3 Command to convert the file to HTML

```
[31]: %shell jupyter nbconvert --to html '/content/drive/MyDrive/Colab Notebooks/
       ↪Ravi_Teja_Kothuru_AAI_530_A1_M5_Assignment_5.1.ipynb'
```

```
[NbConvertApp] Converting notebook /content/drive/MyDrive/Colab
Notebooks/Ravi_Teja_Kothuru_AAI_530_A1_M5_Assignment_5.1.ipynb to html
[NbConvertApp] Writing 398372 bytes to /content/drive/MyDrive/Colab
Notebooks/Ravi_Teja_Kothuru_AAI_530_A1_M5_Assignment_5.1.html
```

[31]:

5.4 Command to convert the file to PDF

```
[34]: %shell jupyter nbconvert --to pdf '/content/drive/MyDrive/Colab Notebooks/
       ↪Ravi_Teja_Kothuru_AAI_530_A1_M5_Assignment_5.1.ipynb'
```

```
[NbConvertApp] Converting notebook /content/drive/MyDrive/Colab
Notebooks/Ravi_Teja_Kothuru_AAI_530_A1_M5_Assignment_5.1.ipynb to pdf
[NbConvertApp] Writing 109150 bytes to notebook.tex
[NbConvertApp] Building PDF
[NbConvertApp] Running xelatex 3 times: ['xelatex', 'notebook.tex', '-quiet']
[NbConvertApp] Running bibtex 1 time: ['bibtex', 'notebook']
```

```
[NbConvertApp] WARNING | bibtex had problems, most likely because there were no
citations
[NbConvertApp] PDF successfully created
[NbConvertApp] Writing 81321 bytes to /content/drive/MyDrive/Colab
Notebooks/Ravi_Teja_Kothuru_AAI_530_A1_M5_Assignment_5.1.pdf
```

[34]: