Python GUI Programming (Tkinter)

- Tkinter offers access to the geometric configuration of the widgets which can organize the widgets in the parent windows. There are mainly three geometry manager classes:
  - **pack() method:**
    - It organizes the widgets in blocks before placing in the parent widget.
  - **grid() method:**
    - It organizes the widgets in grid (table-like structure) before placing in the parent widget.
  - **place() method:**
    - It organizes the widgets by placing them on specific positions directed by the programmer.

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- Widgets:
  - Tkinter provides various controls, such as buttons, labels and text boxes used in a GUI application. These controls are commonly called widgets.

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- **Button:**
  - Button widget has a property for switching on/off. When a user clicks the button, an event is triggered in the Tkinter.
  - The general syntax is:
    - **w=Button(master, option=value)**
      - Master is the parameter used to represent the parent window.
      - There are number of options which are used to change the format of the Buttons. Number of options can be passed as parameters separated by commas. E.g.

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- The general syntax is:
  - w=Button(master, option=value)
    - » **bg**: to set he normal background color.
    - » **command**: to call a function.
    - » **font**: to set the font on the button label.
    - » **image**: to set the image on the button.
    - » **width**: to set the width of the button.
    - » **height**: to set the height of the button.

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- **CheckButton:**
  - To select any number of options by displaying a number of options to a user as toggle buttons.
  - The general syntax is:
    - w = CheckButton(master, option=value)
      - There are number of options which are used to change the format of this widget. E.g.:
        - » **Title**: To set the title of the widget.
        - » **command**: to call a function.
        - » **font**: to set the font on the button label.
        - » **image**: to set the image on the widget.