In Keras, the line model = Sequential() creates a **sequential model**. This is a fundamental concept in building neural networks using Keras. Here's a breakdown of what it means:

**Sequential Model:**

* A sequential model is a type of neural network architecture where layers are stacked one after another in a linear sequence. The data flows through the network from the input layer, through each hidden layer (if any), and finally to the output layer.
* Sequential models are well-suited for tasks like image classification, time series forecasting, and natural language processing, where the order of layers matters and the data processing follows a specific flow.

**Creating a Sequential Model:**

* The Sequential() function from the keras.models module is used to create a sequential model.
* Once you have a Sequential model instance, you can start adding layers to it using the model.add() method. You'll define the type of layer, its configuration (number of units, activation function, etc.), and how it connects to the previous layer.

**Benefits of Sequential Models:**

* **Simple and Easy to Use:** Sequential models are the most straightforward way to build neural networks in Keras. The linear stacking of layers makes them intuitive and easy to understand, especially for beginners.
* **Efficient for Simple Tasks:** For tasks that require a straightforward, feed-forward architecture (data flows in one direction), sequential models are computationally efficient and can be trained quickly.
* **Wide Range of Layer Support:** While sequential models have a linear structure, you can still create complex architectures within them by using different types of layers like dense layers for classification, convolutional layers for image processing, or recurrent layers for sequential data like text.

**Limitations of Sequential Models:**

* **Limited Flexibility:** Sequential models are not ideal for more complex network architectures where data might need to flow in multiple directions or where there might be skip connections between layers. For such cases, you might consider using the Functional API in Keras, which offers more flexibility in building models.

**When to Use Sequential Models:**

* Sequential models are a great choice when you're starting with neural networks and want a clear, well-defined architecture.
* They're suitable for many common tasks in computer vision, natural language processing, and time series analysis where you can design an effective network with a linear flow of data.