LAB 17 EXERCISE: GUI

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Q1.   Design your own app by creating the main figure window, laying out the UI components in it, and configuring the appearance of the components by setting properties.

Q2.   Program the app to respond when a user interacts with it.

Q3.   Run the app to verify that your app looks and behaves as expected.

INPUT CODE:

```matlab
fig = uifigure('Position',[100 100 752 250]);  fig.Name = "Patients Data Management App";
uit = uitable('Parent',fig,'Position',[25 50 700 200]);
load patients
t = table(LastName,Age,Weight,Height,Smoker, ...
          SelfAssessedHealthStatus);
t.SelfAssessedHealthStatus = categorical(t.SelfAssessedHealthStatus, ...
          {'Poor','Fair','Good','Excellent'},'Ordinal',true);


uit.Data = t;
uit.ColumnName = {'Last Name','Age','Weight', ...
                  'Height','Smoker','Health Status'};
uit.ColumnWidth = {'auto',75,'auto','auto','auto',100};
uit.RowName = 'numbered';
uit.Position = [15 25 565 200];

function ageCheckCB(src,event)
if (event.Indices(2) == 2 && ...                 % check if column 2
     (event.NewData < 0 || event.NewData > 120))
   tableData = src.Data;
   tableData{event.Indices(1),event.Indices(2)} = event.PreviousData;
   src.Data = tableData;                         % revert the data
   warning('Age must be between 0 and 120.')     % warn the user
end
end
```

Patients Data Management App

	Last Name	Age	Weight	Height	Smoker	Health Status
1	Smith	38	176	71	☑	Excellent
2	Johnson	43	163	69	☐	Fair
3	Williams	38	131	64	☐	Good
4	Jones	40	133	67	☐	Fair
5	Brown	49	119	64	☐	Good
6	Davis	46	142	68	☐	Good
7	Miller	33	142	64	☑	Good
8	Wilson	40	180	68	☐	Good
9	Moore	28	183	68	☐	Excellent
10	Taylor	31	132	66	☐	Excellent
11	Anderson	45	128	68	☐	Excellent
12	Thomas	42	137	66	☐	Poor
13	Jackson	25	174	71	☐	Poor
14	White	39	202	72	☑	Excellent
15	Harris	36	129	65	☐	Good
16	Martin	48	181	71	☑	Good
17	Thompson	32	191	69	☑	Excellent
18	Garcia	27	131	69	☑	Fair
19	Martinez	37	179	70	☐	Good
20	Robinson	50	172	68	☐	Good
21	Clark	48	133	65	☐	Excellent
22	Rodriguez	39	117	64	☐	Fair
23	Lewis	41	137	62	☐	Fair