In[4]:= (* Problem 15. **Save your Lab before this problem. The errors in p15 could be fatal to the entire code.** Plot flowers given below use ColorFunction→
"SunsetColors" for jazmin1 and ColorFunction→"AvocadoColors" for jazmin2
Note the beautiful mathematical formulas representing the flowers
The parametric variables change as follows {u,-Pi,Pi} {v,0,3.4},
use PlotPoints→50, Mesh→None *)

In[5]:= (* Set up the directory *)

In[6]:= ▮▮

Out[6]= /Users/ictlab/Desktop/CSS221 Tuesday

In[7]:= SetOptions[ParametricPlot3D, ImageSize → Small];

In[8]:= c := 5

In[9]:= r1[u_, v_] := v ^ (1.6) (0. + (0.01 + Abs[Sin[c u / 2]]) ^ (1 / 3));

In[10]:= xj1[u_, v_] := r1[u, v] Sin[u] * Cos[v]

In[11]:= yj1[u_, v_] := r1[u, v] Cos[u] * Cos[v]

In[12]:= zj1[u_, v_] := 3.5 Abs[Cos[v]] ^ (0.7) (2 + Sin[c u / 2] ^ 2)

In[13]:= jazmin1[u_, v_] := {xj1[u, v], yj1[u, v], zj1[u, v]}

In[14]:= (* check *)

In[15]:= jazmin1[1., 1.]
Out[15]=
{0.385262, 0.247374, 5.364}

In[16]:= ▮▮
▮▮
▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮"SunsetColors"▮▮▮▮▮▮▮▮▮▮
▮▮

Out[16]=

In[17]:= c := 9

In[18]:= r2[u_, v_] := v ^ (1.6) (0. + (0.01 + Abs[Sin[c u / 2]]) ^ (1 / 3))

In[19]:= xj2[u_, v_] := r2[u, v] Sin[u] * Cos[v]

In[20]:= `yj2[u_, v_] := r2[u, v] Cos[u] * Cos[v]`

In[21]:= `zj2[u_, v_] := 3.5 Abs[Cos[v]] ^ (0.7) (2 + Sin[c u / 2] ^2)`

In[22]:= `jazmin2[u_,v_]:={xj2[u,v],yj2[u,v],zj2[u,v]}`

In[23]:= `(* Check *)`

In[24]:= `"AvocadoColors`

Out[24]=

In[25]:= `(* The blend function *)`

In[26]:=

In[27]:= `(* Generate a table of 10 frames. Careful! The time`
`   depends on the particular computer. Wait till the entire`
`   table has been evaluated.  It could take 1~5 min. Use`
`   ListAnimate  for the output. Set AnimationRunning→False  *)`

In[28]:= `{t, 0, 1, 0.1}`

In[ ]:=