**Лабоаторная работа №6**
**Хренникова Ангелина**

In[76]:=
```
interfunc[x_, a_, b_, c_, d_] := Module[
 {
   sol,
   eq1,
   eq2,
   t
 },

 eq1[t_] := x'[t] == x[t] * (a - b * y[t]);
 eq2[t_] := y'[t] == y[t] * (-c + d * x[t]);

 sol = NDSolve[
   {
     eq1[t],
     eq2[t],
     x[0] == 2,
     y[0] == 1
   },
   {x, y},
   {t, 0, 7},
   MaxSteps → 3000
 ];

 dataset = Table[
   {x[t], y[t]} /. sol[[1]],
   {t, 0, 7, 0.1}
 ];

 ListPlot[dots, Joined → True, PlotRange → All, ImageSize → 500]
]
```

In[77]:=
```
cMinVal = 1;
cMaxVal = 10;
cValStep = 1;
Manipulate[
  interfunc[x, a, b, c, d],

  {a, cMinVal, cMaxVal, cValStep},
  {b, cMinVal, cMaxVal, cValStep},
  {c, cMinVal, cMaxVal, cValStep},
  {d, cMinVal, cMaxVal, cValStep}
]
```

Out[80]=