In[4]:=
```
pde1 = D[u[x, t], t] - D[v[x, t], x] + u[x, t] + v[x, t] == (1 + t) x + (x - 1) t^2;
pde2 = D[v[x, t], t] - D[u[x, t], x] + u[x, t] + v[x, t] == (1 + t) x t + (2 x - 1) t;
constrains = u[x, 0] == u[0, t] == v[x, 0] == v[0, t] == 0;
domain = ImplicitRegion[0 ≤ x ≤ 1 && 0 ≤ t ≤ 1, {x, t}];

sol = NDSolve[{pde1, pde2, constrains}, {u[x, t], v[x, t]}, {x, t} ∈ domain];

f1 = Evaluate[u[x, t] /. sol];
f2 = Evaluate[v[x, t] /. sol];
Plot3D[{f1, f2}, {x, t} ∈ domain, AxesLabel → {x, t, z}]
```

Out[11]=