**Bacione Javascript Editor** is an Integrated Development Environment (IDE) for programming small javascript games on a phone.

License: GPL

Github: github.com/bacionejs

Several games are included in the editor: ski, marslander, chess, monkeymaze, snake, pairs, smash.

Below are several screenshots of ski and marslander with relevant code highlighted to help you understand what the code does.

## ski



```
//skier
  let speed=W/FPS/3, os=[], c=L.canvas();
  c.white();
 c.wilt(),
c.fill(Style=L.gradient(c,W,0,[[.2,"blue"],[.8,"skyblue"]]);
c.fill(L.shape([[0,0,W,W,W,0]]));
for(let i=0;i<2;i++)</pre>
 os.push(
      c.clear();
            x=x>0?x-speed:L.rnd(W*2,W);
c.icon(127794,x,x);
);
);
or
  os.push(
       function(){
         let s=floor(W/20), c=L.canvas(s), x=W/4;
c.translate(x,x);
         c.icon(9975);
);
    function animation(){
  os.forEach(o=>o?.());
  requestAnimationFrame(animation);
  )()
```

```
//color and flip
 let speed=W/FPS/3, os=[], c=L.canvas();
 c.white();
 c.wilt(),
c.fill(Style=L.gradient(c,W,0,[[.2,"blue"],[.8,"skyblue"]]);
c.fill(L.shape([[0,0,W,W,W,0]]));
for(let i=0;i<2;i++)</pre>
 os.push(
      c.clear();
            x=x>0?x-speed:L.rnd(W*2,W);
c.icon(127794,x,x);
);
);
 os.push(
       function(){
         let s=floor(W/20), c=L.canvas(s), x=W/4;
c.fillStyle="red";
c.scale(-1,1);
c.translate(-x,x);
c.icon(9975);
);
(;
    function_animation(){
       os.forEach(o=>o?.());
requestAnimationFrame(animation);
 )()
```

```
//jump
  let speed=W/FPS/3, os=[], c=L.canvas();
  c.white();
 c.wilt(),
c.fill(Style=L.gradient(c,W,0,[[.2,"blue"],[.8,"skyblue"]]);
c.fill(L.shape([[0,0,W,W,W,0]]));
for(let i=0;i<2;i++)</pre>
  os.push(
        function(){
  let s=floor(W/10), c=L.canvas(s), x=0;
           return function(){
              c.clear();
              x=x>0?x-speed:L.rnd(W*2,W);
c.icon(127794,x,x);
 );
);
  os.push(
        function(){
          unction(){
  let s=floor(W/20), c=L.canvas(s), x=W/4;
  c.fillStyle="red";
  c.scale(-1,1);
  c.translate(-x,x);
  c.icon(9975);
  let tgl=1;
  addEventlistener("click" ()=xill=1 false
           addEventListener("click",()=>i||=1,false);
           function jump(){
  c.clearRect(-s,-s,s*2,s*2);
  c.translate((tgl*=-1)*(s),0);
              c.icon(9975);
           let i=0;
            let time=floor(s/speed);
            let reset=3*time;
            return function(){
              if(i==1 || i==reset){
                 jump();
              if(i==reset){
                 ì=0;
              i && i++;
          };
);
);
)
     function animation(){
  os.forEach(o=>o?.());
        requestAnimationFrame(animation);
  )()
```

```
//hit
let hit;
let speed=W/FPS/3, os=[], c=L.canvas();
c.white();
c.fillStyle=L.gradient(c,W,0,[[.2,"blue"],[.8,"skyblue"]]);
c.fill(L.shape([[0,0,W,W,W,0]]));
for(let i=0;i<2;i++)
os.push(</pre>
     function(){
       let s=floor(W/10), c=L.canvas(s), x=0;
return function(){
          c.clear();
          x=x>0?x-speed:L.rnd(W*2,W);
          c.icon(hit?.(x)?128165:127794,x,x);
  )(<u>)</u>
os.push(
  (
     function(){
      hit=function(t){ return((x-s)<t && t<(x+s) && !(0<i && i<reset)); }
let s=floor(W/20), c=L.canvas(s), x=W/4;
c.fillStyle="red";
c.scale(-1,1);
c.translate(-x,x);</pre>
        c.icon(9975);
        let tgl=1;
        addEventListener("click",()=>i||=1,false);
        let i=0;
        let time=floor(s/speed);
        let reset=3*time;
        function jump(){
          c.clearRect(-s,-s,s*2,s*2);
c.translate((tgl*=-1)*(s),0);
          c.icon(9975);
        return function(){
          if(i==1 || i==reset){
            jump();
          if(i==reset){
            ì=0;
 };
,)()
          i && i++;
   function animation(){
     os.forEach(o=>o?.());
     requestAnimationFrame(animation);
```

)()

```
//motion effect
 let hit;
 let speed=W/FPS/3, os=[], c=L.canvas();
 c.white();
 c.fillStyle=L.gradient(c,W,0,[[.2,"blue"],[.8,"skyblue"]]);
 c.fill(L.shape([[0,0,W,W,W,0]]));
 os.push(
      function(){
       let s=floor(W/30), c=L.canvas(), lw=s/5;
c.strokeStyle="whitesmoke";
c.lineWidth=lw;
        c.setLineDash([s,s]);
        c.moveTo(0,lw);
        c.lineTo(W,W+lw);
       return function(){ c.clear(); c.lineDashOffset+=speed; c.stroke(); };
   )()
 for(let i=0;i<2;i++)
 os.push(
   (
     function(){
        let s=floor(W/10), c=L.canvas(s), x=0;
return function(){
          c.clear();
x=x>0?x-speed:L.rnd(W*2,W);
          c.icon(hit?.(x)?128165:127794,x,x);
        };
   )()
 os.push(
     function(){
       hit=function(t){ return((x-s)<t && t<(x+s) && !(0<i && i<reset)); }
        let s=floor(W/20), c=L.canvas(s), x=W/4;
c.fillStyle="red";
        c.scale(-1,1);
c.translate(-x,x);
        c.icon(9975);
        let tgl=1;
        addEventListener("click",()=>i||=1,false);
        let i=0:
        let time=floor(s/speed);
        let reset=3*time;
        function jump(){
          c.clearRect(-s,-s,s*2,s*2);
          c.translate((tgl*=-1)*(s),0);
          c.icon(9975);
        return function(){
          if(i==1 || i==reset){
            jump();
          if(i==reset){
            i=0;
);
);
()
          i && i++;
   function animation(){
     os.forEach(o=>o?.());
     requestAnimationFrame(animation);
 )()
```

## marslander

```
//mountain
let cb=L.canvas();
let mountain=[floor(W*0.7)];
(
    function(){
        let tgl=-1,rise,mx=0,mx2=0,y;
        while(mx<W){
            if(mx==mx2){
                rise=(tgl*=-1)*L.rnd(5,1);
                      mx2=mx2+L.rnd(floor(W/10),floor(W/20));
        }
        y=mountain[mx]+rise;
        if(y<0 || y>W){mx2=mx;continue;}
        mountain[1+(mx++)]=y;
    }
    cb.stroke(L.shape([L.vertices(mountain)]));
}
)()
```



```
//landing site
let cb=L.canvas();
let mountain=[floor(W*0.7)];
(
    function(){
        cb.black();
    let lx=L.rnd(W);
    let tgl=-1,rise,mx=0,mx2=0,y;
    while(mx<W){
        if(mx=lx){
            rise=0;
            mx2=lx+40;
        }else if(mx=mx2){
            rise=(tgl*=-1)*L.rnd(5,1);
            mx2=mx2+L.rnd(floor(W/10),floor(W/20));
        }
        y=mountain[mx]+rise;
        if(y<0 || y>W){mx2=mx;continue;}
        mountain[1+(mx++)]=y;
    }
    cb.fillStyle=L.gradient(cb,W,-W,[[0,"green"],[0.3,"white"]]);
    cb.fill(L.shape([[W,mountain.at(-1),W,W,0,W,0,mountain[0],...L.vertices(mountain)]]));
})()
```



```
//ship
let cb=L.canvas();
let mountain=[floor(W*0.7)];
   function(){
     cb.black();
     let lx=L.rnd(W);
let tgl=-1,rise,mx=0,mx2=0,y;
while(mx<W){
   if(mx==lx){</pre>
          rise=0;
mx2=1x+40;
        y=mountain[mx]+rise;
if(y<0 || y>W){mx2=mx;continue;}
mountain[1+(mx++)]=y;
     cb.fillStyle=L.gradient(cb,W,-W,[[0,"green"],[0.3,"white"]]);
cb.fill(L.shape([[W,mountain.at(-1),W,W,0,W,0,mountain[0],...L.vertices(mountain)]]));
)()
let p=floor(W/20);
chin=L.shape([
let ship=L.shape([[0,0,-1,0,-2,-1,0,-4,2,-1,1,0]],p/4);
let cf=L.canvas();
cf.fillStyle=L.gradient(cf,0,-p,[[.2,"gold"],[.8,"red"]]);
  function animation(){
  cf.resetTransform();
     cf.clear();
     cf.translate(200,200);
     cf.fill(ship);
     requestAnimationFrame(animation);
)()
```

```
//move
let cb=L.canvas();
let mountain=[floor(W*0.7)];
   function(){
     cb.black();
     let lx=L.rnd(W);
let tgl=-1,rise,mx=0,mx2=0,y;
while(mx<W){</pre>
        if(mx==1x){
           rise=0;
mx2=1x+40;
        }else if(mx==mx2){
  rise=(tgl*=-1)*L.rnd(5,1);
           mx2=mx2+L.rnd(floor(W/10),floor(W/20));
        y=mountain[mx]+rise;
if(y<0 || y>W){mx2=mx;continue;}
mountain[1+(mx++)]=y;
     cb.fillStyle=L.gradient(cb,W,-W,[[0,"green"],[0.3,"white"]]);
     cb.fill(L.shape([[W,mountain.at(-1),W,W,0,W,0,mountain[0],...L.vertices(mountain)]]));
let ship=L.shape([[0,0,-1,0,-2,-1,0,-4,2,-1,1,0]],p/4);
let cf=L.canvas();
fet cl-L.calivas(),
cf.fillstyle=L.gradient(cf,0,-p,[[.2,"gold"],[.8,"red"]]);
addEventListener("click",move,false);
let x=L.rnd(W),y=0;
let xx=0.0,yy=0.5;
function move(faste(X));
function move({pageX}){
  yy-=0.2;
if(pageX<(W/2)){xx+=0.1;}
                       \{xx-=0.1;\}
   function animation(){
     cf.resetTransform();
     cf.clear();
     x+=xx;
     y+=(yy+=0.001);
cf.translate(x,y);
     cf.rotate(xx/4);
     cf.fill(ship);
     requestAnimationFrame(animation);
)()
```

```
//land
let cb=L.canvas();
let mountain=[floor(W*0.7)];
let lx;
  function(){
     cb.black();
     tb.black(),
lx=L.rnd(W);
let tgl=-1,rise,mx=0,mx2=0,y;
while(mx<W){</pre>
        if(mx==1x){
           rise=0;
          mx2=1x+40;
        }else if(mx==mx2){
  rise=(tgl*=-1)*L.rnd(5,1);
  mx2=mx2+L.rnd(floor(W/10),floor(W/20));
        y=mountain[mx]+rise;
       if(y<0 || y>W){mx2=mx;continue;}
mountain[1+(mx++)]=y;
     cb.fillStyle=L.gradient(cb,W,-W,[[0,"green"],[0.3,"white"]]);
cb.fill(L.shape([[W,mountain.at(-1),W,W,0,W,0,mountain[0],...L.vertices(mountain)]]));
)(j
let p=floor(W/20);
let ship=L.shape([[0,0,-1,0,-2,-1,0,-4,2,-1,1,0]],p/4);
let cf=L.canvas();
cf.fillStyle=L.gradient(cf,0,-p,[[.2,"gold"],[.8,"red"]]);
addEventListener("click",move,false);
let x=L.rnd(W),y=0;
let xx=0.0, yy=0.5;
function move({pageX}){
  yy-=0.2;
if(pageX<(W/2)){xx+=0.1;}
  else
                      \{xx-=0.1;\}
  function animation(){
     x+=xx:
     y+=(yy+=0.001);
cf.resetTransform();
     cf.clear();
cf.translate(x,y);
     cf.rotate(xx/4);
     let landed=(y>mountain[floor(x)]);
     cf.fill(ship);
     if(landed){return;}
     requestAnimationFrame(animation);
)()
```

```
//rockets
let cb=L.canvas();
let mountain=[floor(W*0.7)];
let lx;
   function(){
      cb.black();
     lx=L.rnd(W);
let tgl=-1,rise,mx=0,mx2=0,y;
while(mx<W){</pre>
         if(mx==lx){
            rise=0;
            mx2=1x+40;
         }else if(mx==mx2){
  rise=(tgl*=-1)*L.rnd(5,1);
  mx2=mx2+L.rnd(floor(W/10),floor(W/20));
         y=mountain[mx]+rise;
         if(y<0 || y>W){mx2=mx;continue;}
mountain[1+(mx++)]=y;
      cb.fillStyle=L.gradient(cb,W,-W,[[0,"green"],[0.3,"white"]]);
cb.fill(L.shape([[W,mountain.at(-1),W,W,0,W,0,mountain[0],...L.vertices(mountain)]]));
)(j
let p=floor(W/20);
let rocketleft =L.shape([[0,0,-1,0,-2,-1,0,-4,2,-1,1,0],[-1.5,0,-2,0,-2,-0.5]],p/4);
let rocketright=L.shape([[0,0,-1,0,-2,-1,0,-4,2,-1,1,0],[ 1.5,0, 2,0, 2,-0.5]],p/4);
let rocketnone =L.shape([[0,0,-1,0,-2,-1,0,-4,2,-1,1,0]] ,p/4);
let ship=rocketnone;
let cf=L.canvas();
cf.fillStyle=L.gradient(cf,0,-p,[[.2,"gold"],[.8,"red"]]);
addEventListener("click",move,false);
let x=L.rnd(W), y=0;
let xx=0.0, yy=0.5;
function move({pageX}){
  yy-=0.2;
if(pageX<(W/2)){ xx+=0.1;ship=rocketleft; }
else { xx-=0.1;ship=rocketright; }
ship=rocketnone,200
                                     ship=rocketnone,200);
   function animation(){
      X+=XX;
      y = (yy = 0.001);
      cf.resetTransform();
      cf.clear();
      cf.translate(x,y);
      cf.rotate(xx/4);
      let landed=(y>mountain[floor(x)]);
      cf.fill(ship);
      if(landed){return;}
      requestAnimationFrame(animation);
)(\dot{)}
```

```
//stars and crash
let cb=L.canvas();
let mountain=[floor(W*0.7)];
let lx;
  function(){
     cb.black()
     cb.fillStyle="white";
     for(let stars=W*W/2000;stars>0;stars--){cb.fillRect(L.rnd(W),L.rnd(W),1,1);}
     1x=L.rnd(W);
     let tgl=-1,rise,mx=0,mx2=0,y;
     while(mx<W){</pre>
        if(mx==lx){
          rise=0;
          mx2=1x+40;
       }else if(mx==mx2){
  rise=(tgl*=-1)*L.rnd(5,1);
  mx2=mx2+L.rnd(floor(W/10),floor(W/20));
       y=mountain[mx]+rise;
       if(y<0 || y>W){mx2=mx;continue;}
mountain[1+(mx++)]=y;
     cb.fillStyle=L.gradient(cb,W,-W,[[0,"green"],[0.3,"white"]]);
cb.fill(L.shape([[W,mountain.at(-1),W,W,0,W,0,mountain[0],...L.vertices(mountain)]]));
)()
let p=floor(W/20);
let rocketleft =L.shape([[0,0,-1,0,-2,-1,0,-4,2,-1,1,0],[-1.5,0,-2,0,-2,-0.5]],p/4);
let rocketright=L.shape([[0,0,-1,0,-2,-1,0,-4,2,-1,1,0],[ 1.5,0, 2,0, 2,-0.5]],p/4);
let rocketnone =L.shape([[0,0,-1,0,-2,-1,0,-4,2,-1,1,0]] ,p/4);
let ship=rocketnone;
let cf=L.canvas();
cf.fillStyle=L.gradient(cf,0,-p,[[.2,"gold"],[.8,"red"]]);
addEventListener("click", move, false);
let x=L.rnd(W), y=0;
let xx=0.0, yy=0.5;
function move({pageX}){
  if(pageX<(W/2)){ xx+=0.1;ship=rocketleft; }</pre>
  else
                      { xx-=0.1; ship=rocketright;
  setTimeout(()=>
                                   ship=rocketnone,200);
  function animation(){
     x+=xx;
     y = (yy = 0.001);
     cf.resetTransform();
     cf.clear();
     cf.translate(x,y);
     cf.rotate(xx/4);
     let landed=(y>mountain[floor(x)]);
     let bad=(yy>0.5 || x<lx || x>(1x+40));
if(landed && bad){ ship=L.shape([Array.from({length:40},()=>L.rnd(p*2)-p)]); }
     cf.fill(ship);
     if(landed){return;}
     requestAnimationFrame(animation);
)(\dot{)}
```