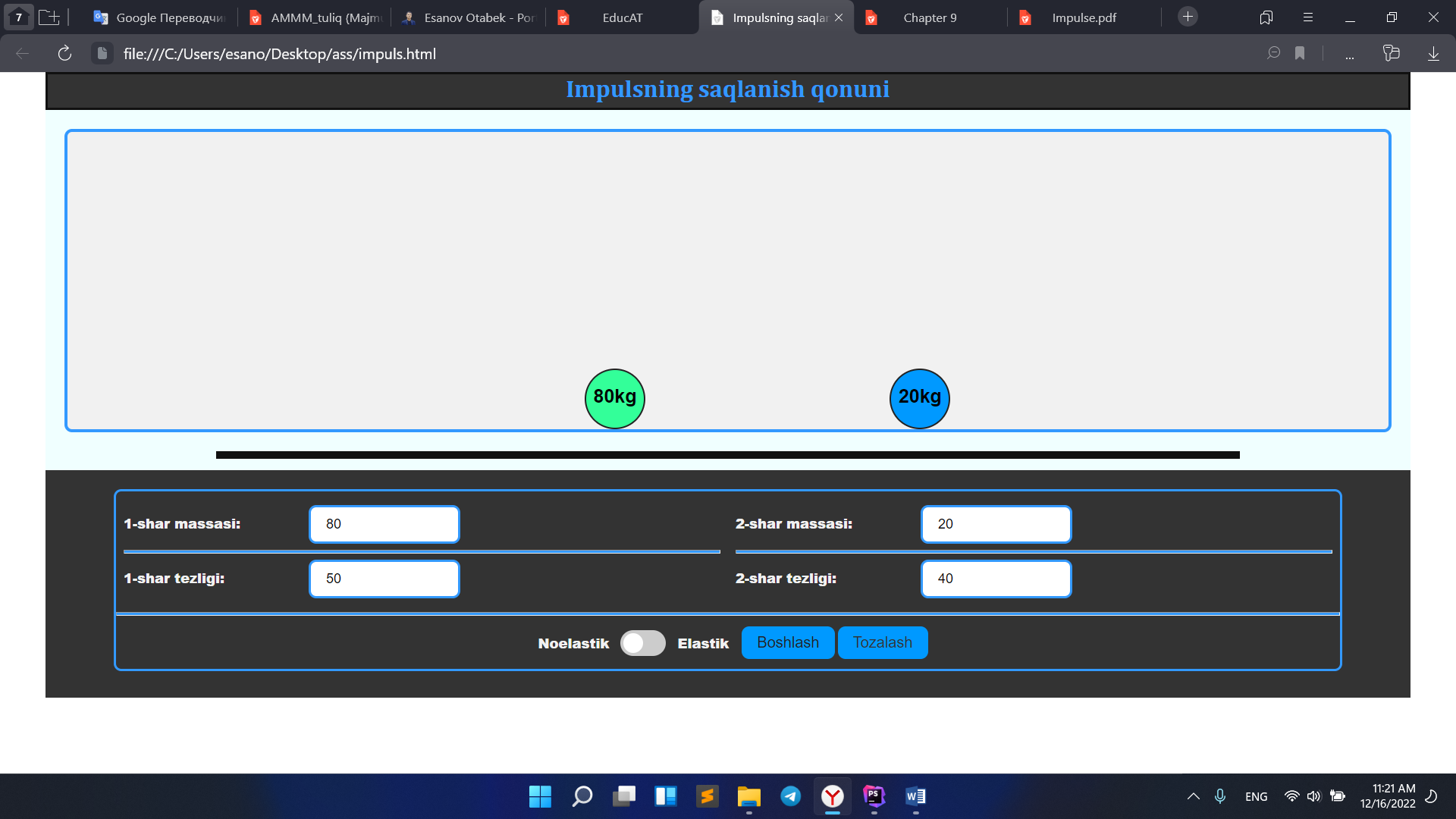
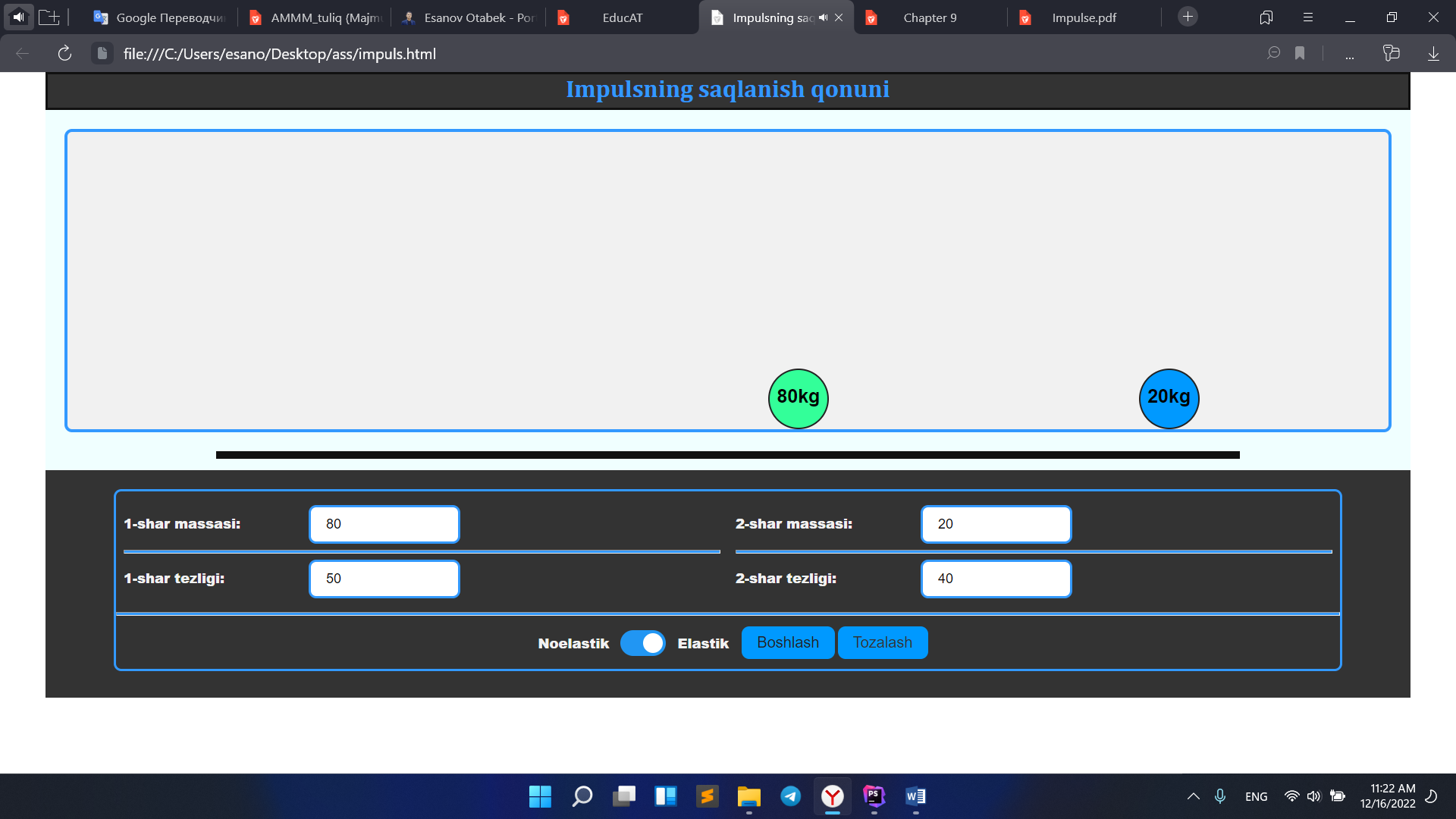
**Sharof Rashidov nomidagi Samarqand davlat universiteti matematika fakulteti 4-03-guruh talabasi Esanov Otabekning Matematik modellashtirish fanidan**

**Mustaqil ishi**

**Mavzu: Impulsning saqlanish qonuni asosida matematik modellar tuzish**

**O’qituvchi:** *Mahmudov Jamol*

**Tayyorladi:** *Esanov Otabek*

**

**JavaScript kodi**

function writer(n) {  
 var massa =Number(***document***.getElementById('massa\_'+n).value);  
 ***document***.getElementById("m\_"+n).innerText = massa + "kg";  
}  
  
var ***id***=null;  
function start(){  
 var circle\_1 = ***document***.getElementById('circle\_1');  
 var circle\_2 = ***document***.getElementById('circle\_2');  
 circle\_1.style.left = "200px";  
 circle\_2.style.right = "1470px";  
  
 clearInterval(***id***);  
  
  
 var massa\_1 = Number(***document***.getElementById('massa\_1').value);  
 var massa\_2 = Number(***document***.getElementById('massa\_2').value);  
 var speed\_1 = Number(***document***.getElementById('speed\_1').value);  
 var speed\_2 = -Number(***document***.getElementById('speed\_2').value);  
 var checked = ***document***.getElementById('isElastik').checked;  
  
 var start1\_pos = 200;  
 var start2\_pos = 1470;  
  
 var impuls = massa\_1 \* speed\_1 + massa\_2 \* speed\_2;  
 var speed=0;  
 var speed0=0;  
  
 if(!checked){  
 speed = impuls/(massa\_1 + massa\_2);  
 speed0 = speed;  
 }  
 else{  
 speed = (impuls - massa\_2 \* (speed\_1 - speed\_2)) / (massa\_1 + massa\_2);  
 speed0 = speed + (speed\_1 - speed\_2);  
 }  
 var xs = false;  
 ***id*** = setInterval(function () {  
 // console.log(start1\_pos+80);  
 // console.log(start2\_pos);  
 start1\_pos += speed\_1/100;  
 start2\_pos += speed\_2/100;  
 start1\_pos = ***Math***.round(start1\_pos\*100)/100;  
 start2\_pos = ***Math***.round(start2\_pos\*100)/100;  
  
 circle\_1.style.left = start1\_pos + "px";  
 circle\_2.style.left = start2\_pos + "px";  
 if (!xs && ***Math***.abs(***Math***.round(start1\_pos)+80 - ***Math***.round(start2\_pos))<=1){  
 xs = true;  
 taskSolvedCongratulations()  
  
 speed\_1 = speed;  
 speed\_2 = speed0;  
 }  
  
 if (start2\_pos+80 > 1750 || start1\_pos <= 0){  
 clearInterval(***id***);  
 }  
 },1);  
  
 if (start2\_pos >= 1700){  
 speed\_2 = 0;  
 }  
 if(start1\_pos <= 0){  
 speed\_1 = 0;  
 }  
}  
  
function stop(){  
 clearInterval(***id***);  
 var circle\_1 = ***document***.getElementById('circle\_1');  
 var circle\_2 = ***document***.getElementById('circle\_2');  
 circle\_1.style.left = "200px";  
 circle\_2.style.left = "1470px";  
}  
  
  
function taskSolvedCongratulations() {  
 const duration = 800;  
 const animationEnd = Date.now() + duration;  
 const defaults = {startVelocity: 30, spread: 360, ticks: 60, zIndex: 0};  
  
 function randomInRange(min, max) {  
 return ***Math***.random() \* (max - min) + min;  
 }  
  
 const interval = setInterval(function () {  
 const timeLeft = animationEnd - Date.now();  
  
 if (timeLeft <= 0) {  
 return clearInterval(interval);  
 }  
  
 const particleCount = 50 \* (timeLeft / duration);  
 // since particles fall down, start a bit higher than random  
  
 confetti(***Object***.assign({}, defaults, {  
 particleCount,  
 origin: {x: randomInRange(0.1, 0.3), y: ***Math***.random() - 0.2}  
 }));  
  
 confetti(***Object***.assign({}, defaults, {  
 particleCount,  
 origin: {x: randomInRange(0.7, 0.9), y: ***Math***.random() - 0.2}  
 }));  
  
 confetti(***Object***.assign({}, defaults, {  
 particleCount,  
 origin: {x: randomInRange(0.5, 0.7), y: ***Math***.random() - 0.2}  
 }));  
 }, 250);  
  
 let audio = ***document***.getElementById('congratulationsSound')  
  
 if (audio.paused) {  
 audio.play();  
 }else{  
 audio.currentTime = 0  
 }  
}

***HTML KODI***

<!DOCTYPE html>  
<html lang="en">  
<head>  
 <meta charset="UTF-8">  
 <title>Impulsning saqlanish qonuni</title>  
 <meta name="viewport" content="width=device-width, initial-scale=1.0">  
 <link rel="stylesheet" href="style.css">  
</head>  
<body>  
  
<div class="content">  
 <div class="head">  
 <h2 class="title">Impulsning saqlanish qonuni</h2>  
  
 </div>  
  
 <div class="body">  
 <div class="border">  
 <div id="circle\_1" class="circle">  
 <p id="m\_1">0</p>  
 </div>  
  
 <div id="circle\_2" class="circle">  
 <p id="m\_2">0</p>  
 </div>  
 </div>  
 <div class="line"></div>  
 </div>  
  
 <div class="foot">  
 <div class="row">  
 <div class="col">  
 <label for="massa\_1">1-shar massasi: </label>  
 <input type="number" id="massa\_1" placeholder="M1" min="0" max="100" onkeyup="writer(1)">  
  
 <hr>  
  
 <label for="speed\_1">1-shar tezligi: </label>  
 <input type="number" id="speed\_1" placeholder="V1">  
  
 </div>  
  
 <div class="col">  
 <label for="massa\_2">2-shar massasi: </label>  
 <input type="number" id="massa\_2" placeholder="M2" min="0" max="100" onkeyup="writer(2)">  
  
 <hr>  
  
 <label for="speed\_2">2-shar tezligi: </label>  
 <input type="number" id="speed\_2" placeholder="V2">  
  
 </div>  
 <hr>  
 <div class="btn\_center">  
 <p class="ass">Noelastik</p>  
 <label class="switch" >  
 <input type="checkbox" id="isElastik">  
 <span class="slider round"></span>  
 </label>  
 <p class="ass">Elastik</p>  
 <button class="btn\_ok" onClick="start()">Boshlash</button>  
 <button class="btn\_ok" onclick="stop()">Tozalash</button>  
 </div>  
  
 </div>  
 </div>  
</div>  
  
<script src="https://cdn.jsdelivr.net/npm/canvas-confetti@1.4.0/dist/confetti.browser.min.js"></script>  
<audio src="https://robocontest.uz/assets/sounds/fireworks.mp3" id="congratulationsSound"></audio>  
<script src="app.js"></script>  
  
</body>  
</html>