

## IT 426 Final Examination

Sometimes all it takes to create a new web experience is a simple modification of existing code. Save and extract the files in the Final Test folder into your IT 426 web folder. In the Final Test folder you will find:

- FinalTestStarter.html – a web page with a picture that scrolls horizontally.
- spaceNeedle.jpg – a 1600 px tall by 719 px wide picture
- spaceNeedlesmall.jpg – a 420 px tall by 189 px wide picture.
- outline.gif – a 110 px tall by 189 px wide picture
- NautilusPlanLarge.jpg – a 545 px tall by 2000 px wide picture, not used in your test

Complete the following:

Minor authoring (“C” score (105)) –

- Use FinalTestStarter.html as a guide to create a webpage that scrolls spaceNeedle.jpg vertically. The picture will scroll up when the mouse is moved in the top half of the picture and will scroll down when the mouse is in the bottom half. The scrolling action must stop when either the top or the bottom of the picture is reached. The page should include the following divs:
  - container – wraps all the divs on the page, position is set to absolute
  - title – contains the title “Space Needle”
  - picMask – positioned relative, with overflow-y: hidden, height: 420px width: 719px.
  - picHolder – positioned relative, nested inside picMask

Average authoring (“B” score (120) if done in conjunction with “C” items listed above.) –

- Add another div to the right of picMask/picHolder called smallPic with the following settings:
  - float:left, width: 189px, height: 420px, background-image: url(spaceNeedleSmall.jpg);
- Place outline.gif in a new div (and set the div’s position: relative) inside the smallPic div.
- Add code to make the new div containing outline.gif move downward as the main picture scrolls up, indicating the part of the large picture currently being displayed. Hint: spaceNeedle.jpg is 3.8 times as tall as spaceNeedlesmall.jpg.

Major authoring (“A” score (135) if done in conjunction with the “C” and “B” items listed above.) –

- Add a new function (and global variables) that changes the text in the title as the main picture is scrolled. The title should change four times, spaced evenly over the entire scroll:
  - “The Space Needle”
  - “Seattle, Washington”
  - “Opened in 1962”
  - “Symbol of the Seattle World’s Fair”
- Hint: Be sure to call the function somewhere! Hint code (from a Nautilus sample):

```
function doTheTitle(){
switch(true){
    case (currentPosition < 0 && currentPosition > -500):
        titleText = "The Nautilus";
        break;
    case (currentPosition < -501 && currentPosition > -1000):
        titleText = "<span style = color:slategrey>from Disney's 20,000 Leagues under the Sea</span>";
        break;
    (more code here)
}
```

theTitle.innerHTML=titleText;

Full 150 point attempt – Add a global variable and a line to an existing function that uses an interval to keep the scrolling moving without having to move the mouse.

- The onMouseMove listener must call a new function that updates the current mouse position.
- onMouseOver and onMouseOut listeners must be added
- Hint code: timerId = setInterval(function() {...whatever happens goes here.../}, 10);
- Hint: A onMouseOut handler must call the code: function makeItStop() { clearInterval(timerId); }
- Hint: A local variable will have to become a global variable.

There are 150 points possible.

Submit your exam using Teams on Tuesday, June 9, between 8:00 and 10:00 am.