Lab 2: Gestalt Laws, Information Content, Visibility, Affordances, and Signifiers
Assignment 1: Fitts’ Law
Figure 1: UI of Adobe Photoshop. The user’s task

Left edge of the screen

\[
a = 0 \text{ ms and } b = 100 \text{ ms/bit.}
\]
If the user uses her fingers instead of a mouse, the device parameters change to $a = 100 \text{ ms}$ and $b = 50 \text{ ms/bit}$. Does the movement time increase or decrease as a result of this? Hint: You don’t need to compute the exact movement time.

Figure 1: UI of Adobe Photoshop. The user’s task

Left edge of the screen
Oliver's Design  Marcel's Design
Template-driven validation

To add validation to a template-driven form, you add the same validation attributes as you would with native HTML form validation. Angular uses directives to match these attributes with validator functions in the framework.

Every time the value of a form control changes, Angular runs validation and generates either a list of validation errors, which results in an INVALID status, or null, which results in a VALID status.

You can then inspect the control's state by exporting `ngModel` to a local template variable. The following example exports `ngModel` into a variable called `name`:

```html
template/hero-form-template.component.html (name)

<input id="name" name="name" class="form-control"
required minlength="4" forbiddenName="bob"
[(ngModel)]="hero.name" #name="ngModel" >

<div *ngIf="name.invalid && (name.dirty || name.touched)"
class="alert alert-danger">
  <div *ngIf="name.errors.required">
    Name is required.
  </div>
  <div *ngIf="name.errors.minlength">
    Name must be at least 4 characters long.
  </div>
  <div *ngIf="name.errors.forbiddenName">
    Name cannot be Bob.
  </div>
</div>
```
Great reasons to shop the Apple Online Store.

**Free personal engraving.**
Make any iPod or iPad gift more personal with free laser engraving. [View gallery](#)

**Signature gift wrapping.**
Wrap their holiday in style with signature gift wrapping. [Learn more](#)

---

**Buy online. Pick up in store.**
Buy great gifts here. Pick up at any Apple Retail Store. Get Personal Setup. [Learn more](#)

**Free shipping.**
Get fast, free shipping on any order over $50 and on anything in our Holiday Gift Guide. [Learn more](#)

**Returns made easy.**
Ship your items back to us free or take them to an Apple Retail Store. [Learn more](#)
In-Class Exercise 2: Affordances vs. Signifiers