1. HTML/CSS Tracing

<div style="background-color: yellow;">

Hello

Goodbye

</div>

<div style="border: dashed;">

Happy Sad

</div>

<div style="border: dotted red;">

Thursday
Friday
Saturday

</div>

<div style="border: dotted red;">

<u>*SUNDAY*</u>

</div>

<div style="border: dotted red;">

Monday
Tuesday
Wednesday

</div>

2. HTML/CSS Coding

```html
<div id="main">
  <img src="brunologo.png" alt="logo" />

  <div id="content">
    <ul id="links">
      <li><a href="home.html">HOME</a></li>

      <li><a href="vids/">VIDEOS</a></li>
      <li><a href="shirt.html">FUNNY SHIRTS</a></li>
      <li><a href="trailer.html">BRUNO MOVIE TRAILER</a></li>

      <li><a href="photos/">PHOTOS</a></li>
      <li><a href="http://dvdshop.com/">DVD SHOP</a></li>
    </ul>

    <div class="story">
      <img src="brunouniversal.jpg" alt="Bruno at Universal" />
      <h2>Universal Responds to Lawsuit</h2>

      <p>Movie studio Universal Pictures on Friday responded to a ...</p>
    </div>

    <div class="story">
      <img src="paulaabdul.jpg" alt="Paula Abdul" />

      <h2>Paula Abdul Talks About Being in Bruno</h2>
      <p>Paula Abdul accepted an invite last year to receive an ...</p>
    </div>

    <div class="story">

      <img src="eminem.jpg" alt="Eminem" />
      <h2>Eminem Admits He Was Involved</h2>
      <p>Three days after storming out of the MTV awards, Eminem ...</p>

    </div>
  </div>
</div>
```
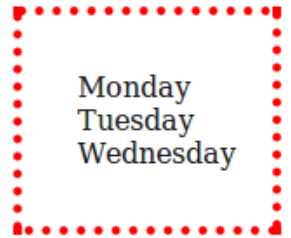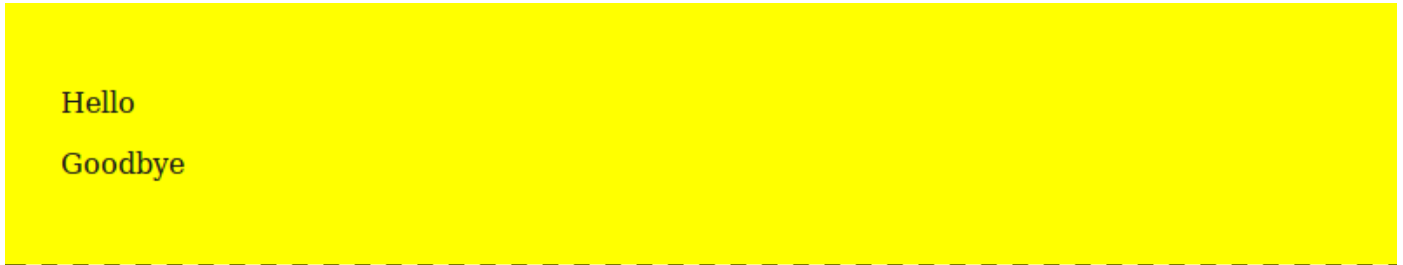
```css
body {
  background-color: #0088EE;
  font-family: sans-serif;
}

#main {
  width: 85%;
  margin-left: auto;
  margin-right: auto;
}

#content {
  background-color: white;
  border: 3px solid #005588;
}

#links {
  list-style-type: none;
  padding: 0em;
  text-align: center;
}

#links li {
  display: inline;
  font-weight: bold;
  padding-left: 1em;
  padding-right: 1em;
}

.story {
  clear: right;
  overflow: hidden;
  margin: 1em;
}

.story h2 {
  margin-top: 0em;
}

.story img {
  float: right;
}
```

3. PHP

```php
<?php
$cost = 0.00;
$samoas = (int) $_POST["samoas"];        # cast to (int) optional
$cost += $samoas * 3.50;
$thin_mints = (int) $_POST["thinmints"];
$cost += $thin_mints * 4.00;

if (isset($_POST["donation"])) {
    $cost += 5.00;
}
if ($_POST["shipping"] == "express") {
    $cost += 9.00;
} else {
    $cost += 7.00;   # standard shipping
}
?>

<h1>Your order:</h1>
<div>
    <?php for ($i = 0; $i < $samoas; $i++) { ?>
        <img src="samoas.jpg" alt="samoas" />
    <?php } ?>

    <?php for ($i = 0; $i < $thin_mints; $i++) { ?>
        <img src="thinmints.jpg" alt="thin mints" />
    <?php } ?>
</div>

<p> Total order cost: <strong> $<?= $cost ?> </strong> </p>

<?php if (isset($_POST["donation"])) { ?>
    <p> Thank you for your donation! </p>
<?php } ?>
```

4. JavaScript/DOM

```javascript
window.onload = function() {
    document.getElementById("compute").onclick = computeClick;
    document.getElementById("clear").onclick = clearClick;
};

function computeClick() {
    var earned = 0;
    var earnedInputs = document.querySelectorAll(".earned");
    for (var i = 0; i < earnedInputs.length; i++) {
        earned += parseInt(earnedInputs[i].value);
    }

    var max = 0;
    var maxInputs = document.querySelectorAll(".max");
    for (var i = 0; i < maxInputs.length; i++) {
        max += parseInt(maxInputs[i].value);
    }

    var percent = Math.round(100 * earned / max);
    if (document.getElementById("curve").checked) {
        percent = Math.min(100, percent + 5);
    }

    var newDiv = document.createElement("div");
    newDiv.innerHTML = percent;
    if (percent >= 60) {
        newDiv.className = "pass";
    } else {
        newDiv.className = "fail";
    }
    document.getElementById("resultsarea").appendChild(newDiv);
}

function clearClick() {
    var inputs = document.querySelectorAll("input");
    for (var i = 0; i < inputs.length; i++) {
        inputs[i].value = "";
    }
}
```

5. Ajax/XML

```javascript
window.onload = function() {
    var ajax = new XMLHttpRequest();
    ajax.onload = ajaxSuccess;
    ajax.open("GET", "weather.php", true);
    ajax.send();
};

function ajaxSuccess() {
    var cities = this.responseXML.getElementsByTagName("city");
    for (var i = 0; i < cities.length; i++) {
        var cityName = cities[i].getAttribute("name");

        var li = document.createElement("li");
        li.innerHTML = cityName + ": ";

        var highs = cities[i].getElementsByTagName("high");
        for (var j = 0; j < highs.length; j++) {
            var high = parseInt(highs[j].firstChild.nodeValue);
            var img = document.createElement("img");
            img.style.paddingLeft = "10px";
            if (high < 70) {
                img.src = "cold.gif";
            } else {
                img.src = "warm.gif";
            }
            li.appendChild(img);
        }
        document.getElementById("forecast").appendChild(li);
    }
}
```

6. SQL

```sql
-- names of the Martin Scorsese movies where he also appeared as an actor

SELECT m.name
FROM movies m
  JOIN roles r ON m.id = r.movie_id
  JOIN actors a ON a.id = r.actor_id
  JOIN movies_genres mg ON mg.movie_id = m.id
  JOIN movies_directors md ON md.movie_id = m.id
  JOIN directors d ON d.id = md.director_id
WHERE a.first_name = "Martin" AND a.last_name = "Scorsese"
  AND d.first_name = "Martin" AND d.last_name = "Scorsese"
  AND mg.genre = "Drama"
ORDER BY m.name;
```