

# Moslashuvchan dizayn

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# Responsive web design

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# Responsive vs Adaptive

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# Moslashuvchan dizayn

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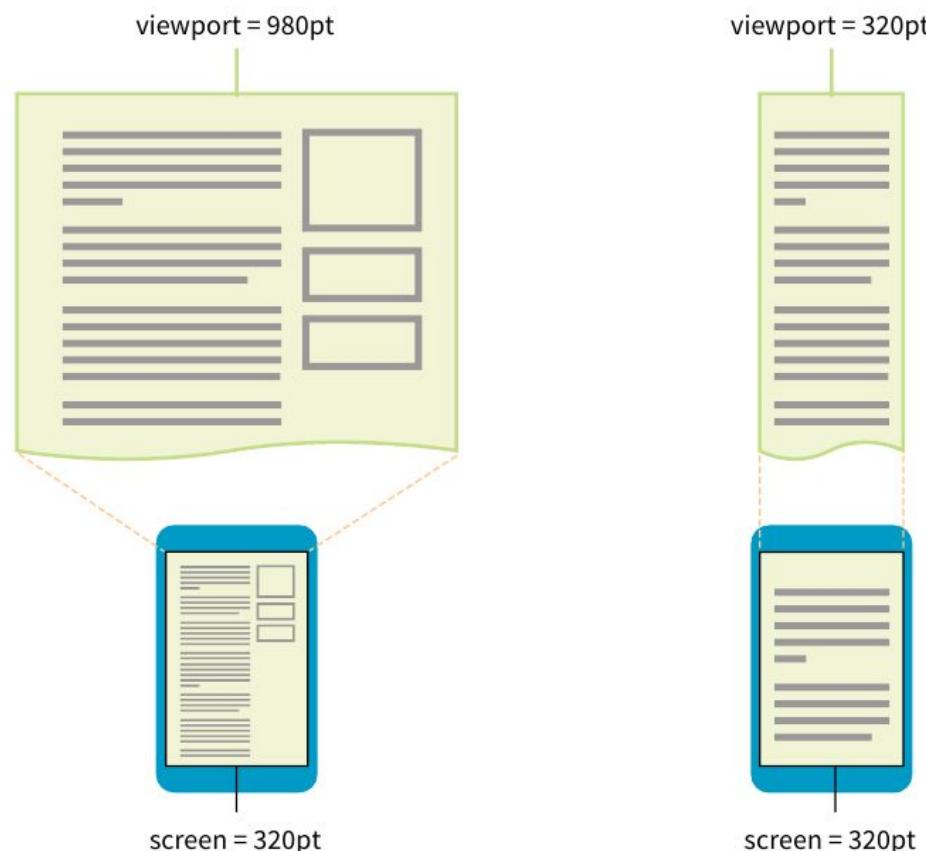
Moslashuvchan dizayn texnikasining 3ta asosiy komponenti:

- Moslashuvchan setka (flexible grid, fluid layout)
  - Moslashuvchan rasmlar (flexible images)
  - CSS media so'rovlar (media queries)
- \*Qo'shimcha ravishda viewport meta elementi.

# Viewport meta element

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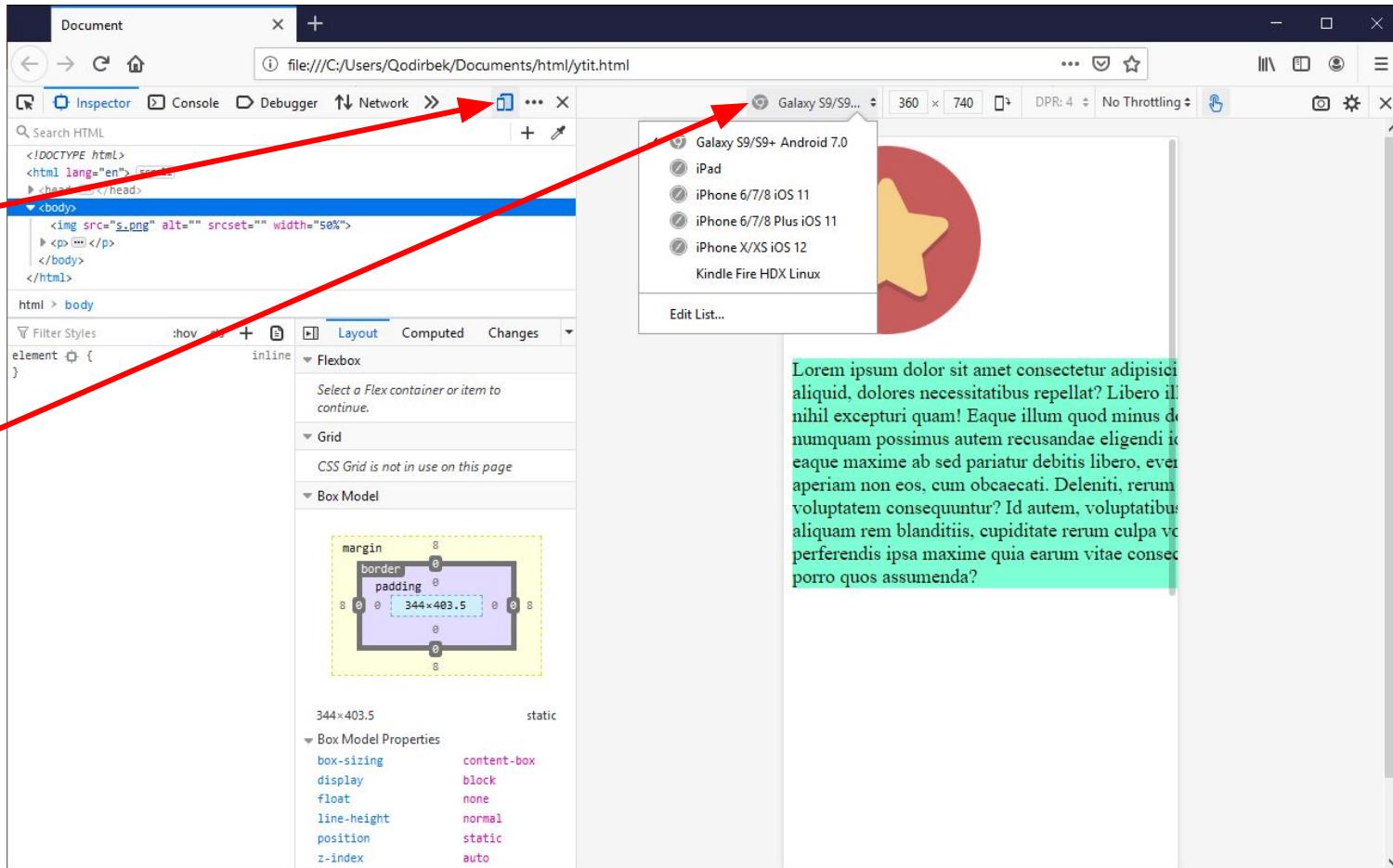
```
<meta name="viewport" content="width=device-width, initial-scale=1">
```



# Developer tools

Qurilmalarda  
ko'rinishni yoqish

Qurilmani tanlash

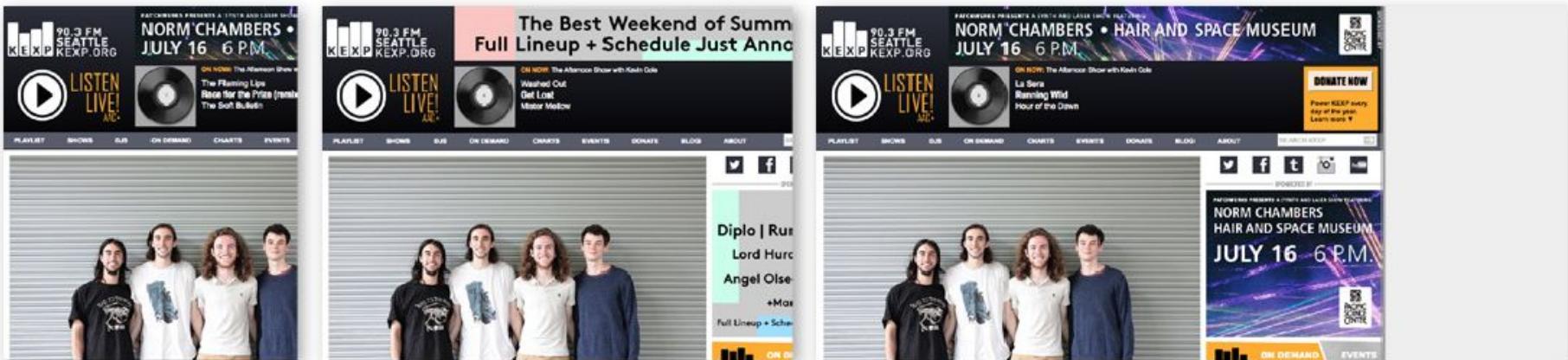
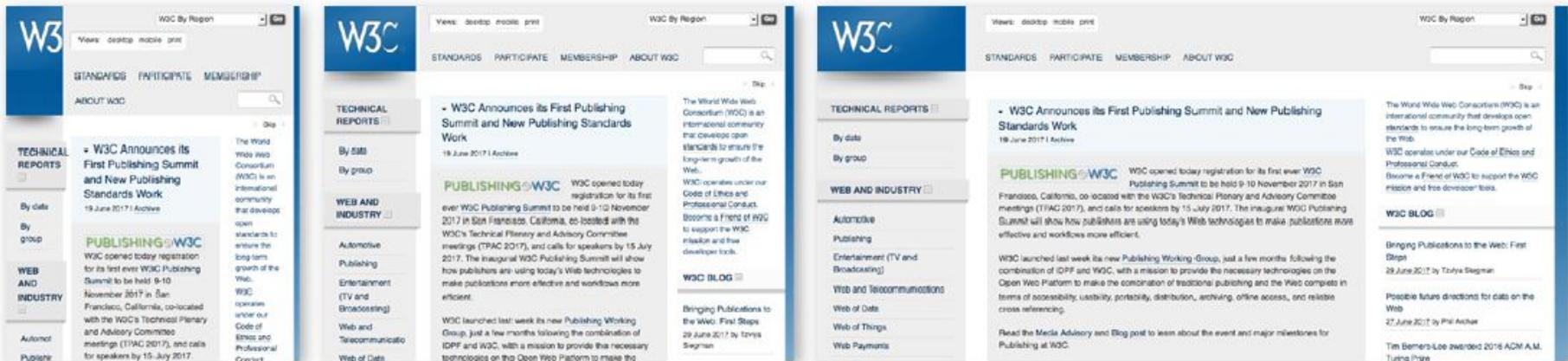


# Moslashuvchan setka (flexible grid, fluid layout)

CSS Grid layout

CSS Flex layout

Foizli qiymatlar



# Moslashuvchan rasmlar (flexible images)

```
img {  
    max-width: 100%;  
}
```

In this book, Philadelphia Ice Creams, comprising the first group, are very palatable, but expensive. In many parts of the country it is quite difficult to get good cream. For that reason, I have given a group of creams, using part milk and part cream, but it must be remembered that it takes smart "juggling" to make ice cream from milk. By far better use condensed milk, with enough water or milk to rinse out the cans.

Ordinary fruit creams may be made with condensed milk at a cost of about fifteen cents a quart, which, of course, is cheaper than ordinary milk and cream.



If pure raw cream is stirred rapidly, it swells and becomes frothy, like the beaten whites of eggs, and is "whipped cream." To prevent this in making Philadelphia Ice Cream, one-half the cream is scalded, and when it is very cold, the remaining half of raw cream is added. This gives the smooth, light and rich consistency which makes these creams so different from others.

The time for freezing varies according to the quality of cream or milk or water; water ices require a longer time than ice creams. It is not well to freeze the mixtures too rapidly; they are apt to be coarse, not smooth, and if they are churned before the mixture is icy cold they will be greasy or "buttery."

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# Media so'rovlar

---

```
@media [not | only] type [and (feature: value)]... {  
  /* styles for browsers that meet this criteria */  
}  
  
@media screen and (orientation: landscape) {  
  body {  
    background: skyblue;  
  }  
}  
  
@media screen and (orientation: portrait) {  
  body {  
    background: coral;  
  }  
}
```



# Media turlar

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**all** – barcha turdagи qurilmalar uchun

**print** – printerlar uchun

**screen** – kompyuter, planshet, smartfon ekranlari uchun

**speech** – ekrandagi sahifani o'qiydigan (ovoz bilan) dasturlar uchun

# Media xossalar

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<b>width</b>	ko'rinish sohasi (viewport) kengligi, <b>min-width</b> , <b>max-width</b> ham ishlataladi
<b>height</b>	ko'rinish sohasi (viewport) uzunligi, <b>min-height</b> , <b>max-height</b> ham ishlataladi
<b>orientation</b>	qurilma yo'nalishini aniqlash ( <b>portrait</b> , <b>landscape</b> )
<b>aspect-ratio</b>	qurilma tomonlari nisbati (width/height), masalan, <b>aspect-ratio: 16/9</b>
<b>color</b>	displeyning bitlari, masalan, <b>color: 8</b> – qurilma kamida 8 bitli rangni qo'llaydi
<b>resolution</b>	qurilmaning piksellar zichligi (dpi, dpcm)
<b>grid</b>	qurilmaning displeyi setkaga asoslanganini aniqlash, terminal oynasiga o'xshash

<https://www.w3.org/TR/mediaqueries-4/>

# Ishlatish

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HTMLda:

```
<head>
  <link rel="stylesheet" href="styles.css">
  <link rel="stylesheet" href="2column-styles.css" media="screen and (min-width:1024px)">
</head>
```

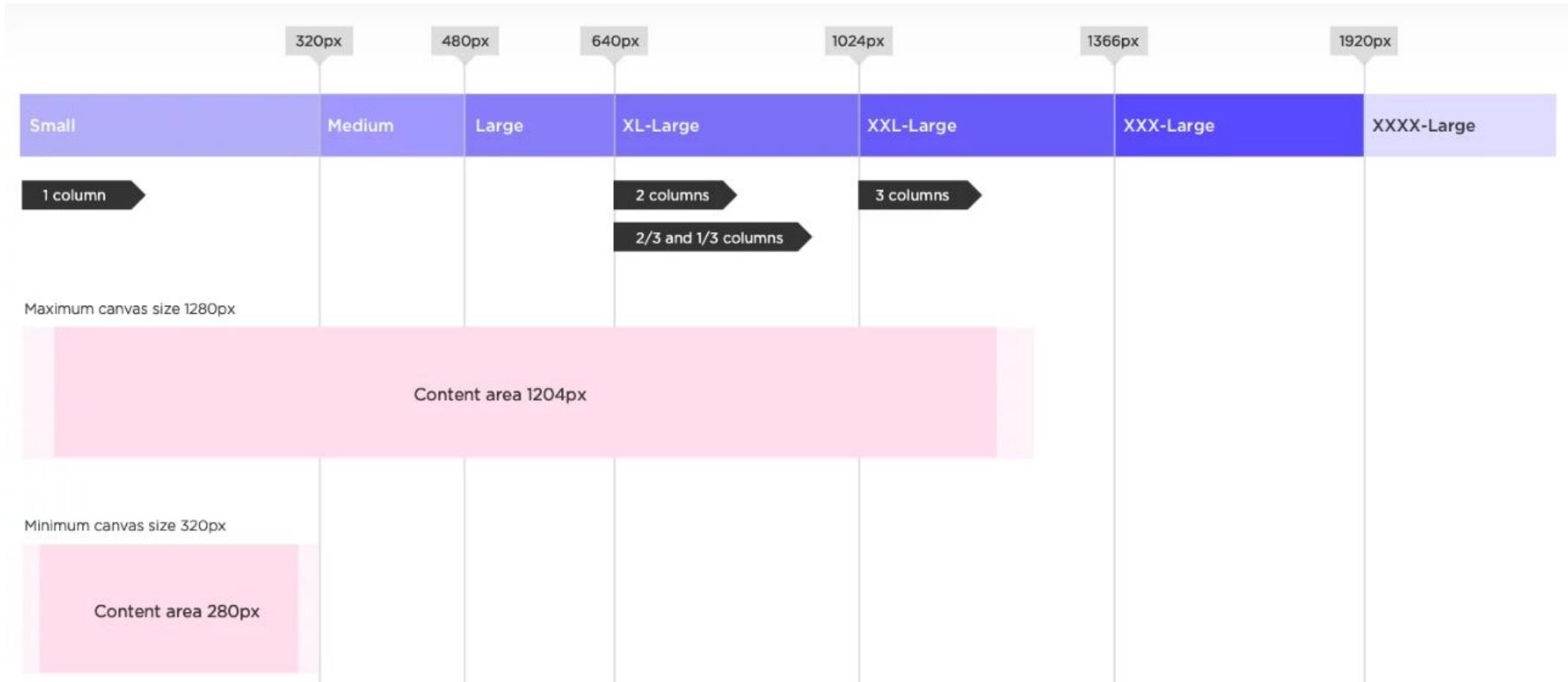
CSSda import orqali:

```
<style>
  @import url("/default-styles.css");
  @import url("/wide-styles.css") screen and (min-width: 1024px);
</style>
```

CSSda media so'rov orqali:

```
<style>
@media screen and (orientation: landscape) {
  body {
    background: skyblue;
  }
}
</style>
```

# To'xtash nuqtasini tanlash (breakpoint)



# To'xtash nuqtasini tanlash (breakpoint)

The diagram illustrates responsive design concepts, specifically focusing on breakpoints and media queries for different devices.

**Break point & resolutions**

- 320 (Phone – portrait)
- 480 (Phone – landscape + portrait)
- 600 (Small tablet – portrait)
- 768 (Large Tablet – portrait)
- 800 (Phone + Small tablet – landscape)
- 1024 (Large Tablet – landscape)\*
- 1280 (Desktop)
- 1440+ (Wide screen desktop)

**Device Widths:**

- Monitor: Width: 1440px
- Laptop: Width: 1280px
- Tablet: Width: 1024px
- Tablet: Width: 1024px
- Smartphone: Width: 480px
- Smartphone: Width: 320px

**Responsive Media Queries:**

- Desktop:** @media screen and (min-width: 1024px) {...}
- Tablet:** @media screen and (min-width: 768px) and (max-width: 1023px) {...}
- Smartphone:** @media screen and (max-width: 767px) {...}

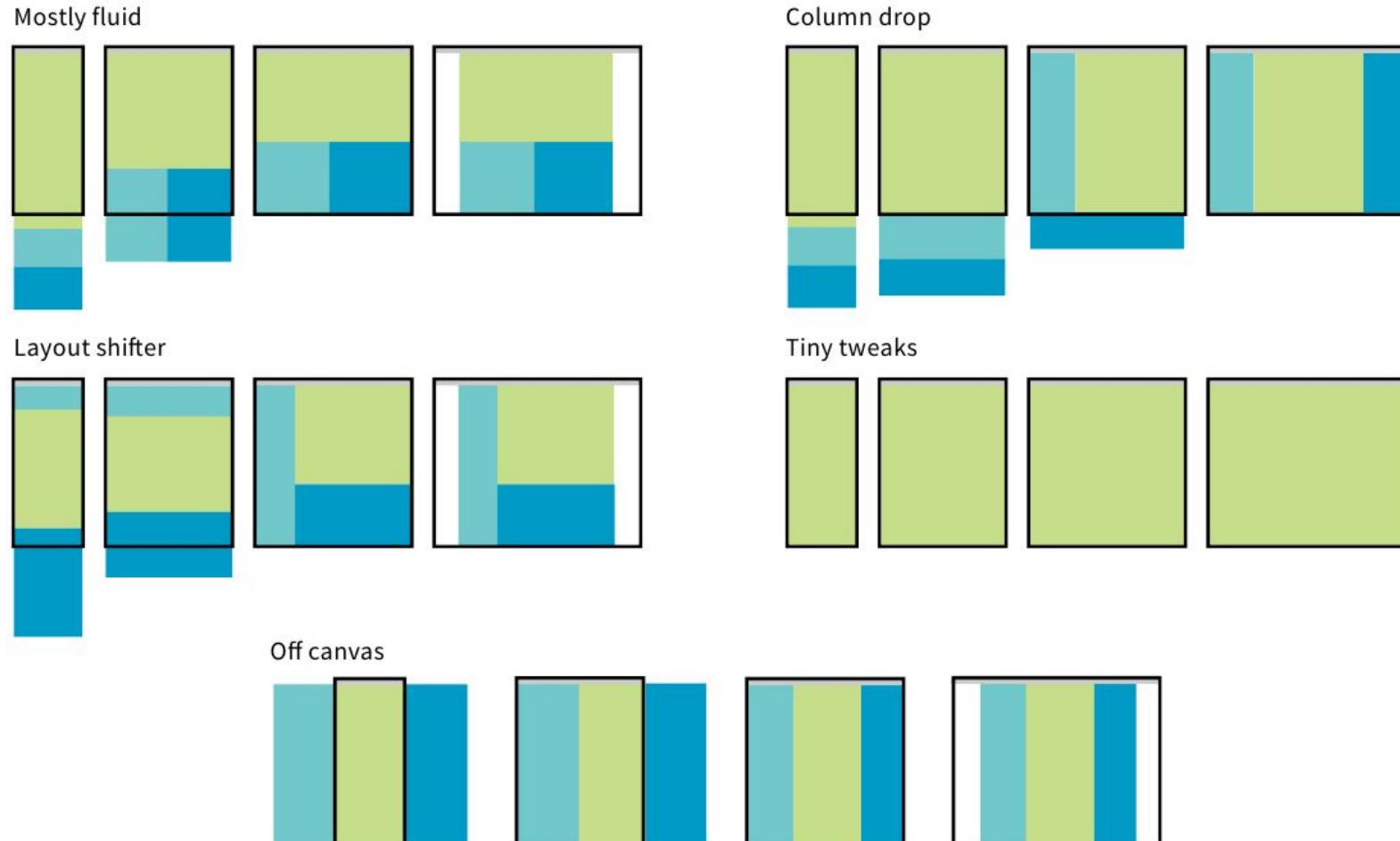
# Moslashuvchan dizayn

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Muhim bo'lgan elementlar:

- Kontent ierarxiyasi (Content hierarchy)
- Maket (Layout)
- Tipografiya (Typography)
- Navigatsiya (Navigation)
- Rasmlar (Images)
- Maxsus content (jadvallar, formalar, interaktiv elementlar)

# Moslashuvchan maket shablonlari (Responsive layout patterns)



# Tipografiya

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## Philadelphia Ice Creams

Comprising the first group, are very palatable, but expensive. In many parts of the country it is quite difficult to get good cream. For that reason, I have given a group of creams, using part milk and part cream, but it must be remembered that it takes smart "juggling" to make ice cream from milk. By far better use condensed milk, with enough water or milk to rinse out the cans.

Ordinary fruit creams may be made with condensed milk at a cost of about fifteen cents a quart, which, of course, is cheaper than ordinary milk and cream. The cream for Philadelphia Ice Cream should be rather rich, but not double cream.

If pure raw cream is stirred rapidly, it swells and becomes frothy, like the beaten whites of eggs, and is "whipped cream." To prevent this  
in making Philadelphia Ice Cream, one half

## *Philadelphia Ice Creams*

Comprising the first group, are very palatable, but expensive. In many parts of the country it is quite difficult to get good cream. For that reason, I have given a group of creams, using part milk and part cream, but it must be remembered that it takes smart "juggling" to make ice cream from milk. By far better use condensed milk, with enough water or milk to rinse out the cans.

Ordinary fruit creams may be made with condensed milk at a cost of about fifteen cents a quart, which, of course, is cheaper than ordinary milk and cream. The cream for Philadelphia Ice Cream should be rather rich, but not double cream.

# Tipografiya

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Muhim bo'lgan xossalar:

- shrift oilasi
- shrift o'lchami
- qator uzunligi
- element chegarasi atrofidagi masofalar

Shuningdek, *vw*, *vh* o'lchov birliklaridan foydalanish mumkin.

# Navigatsiya

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Top navigation



Priority +



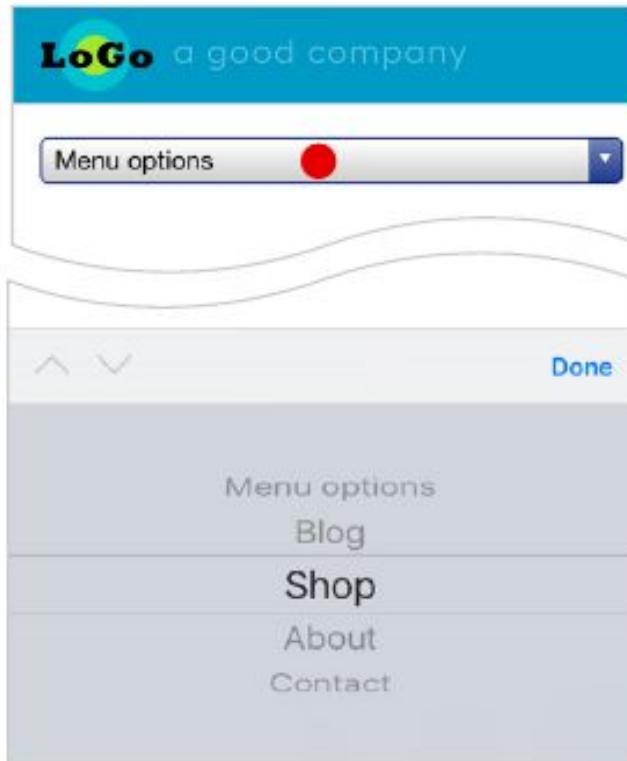
KEY



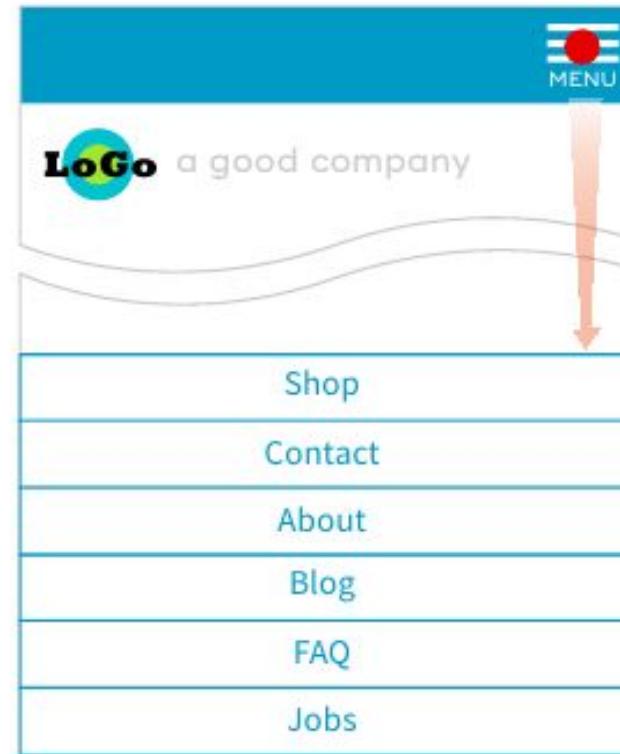
# Navigatsiya

---

Select menu



Link to footer menu



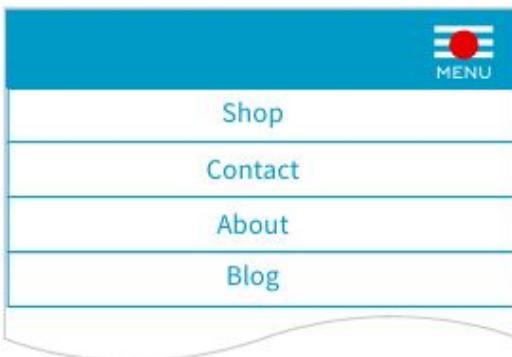
Accordion sub-navigation



# Navigatsiya

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Overlay toggle (covers top of screen)



Off-canvas/fly-in



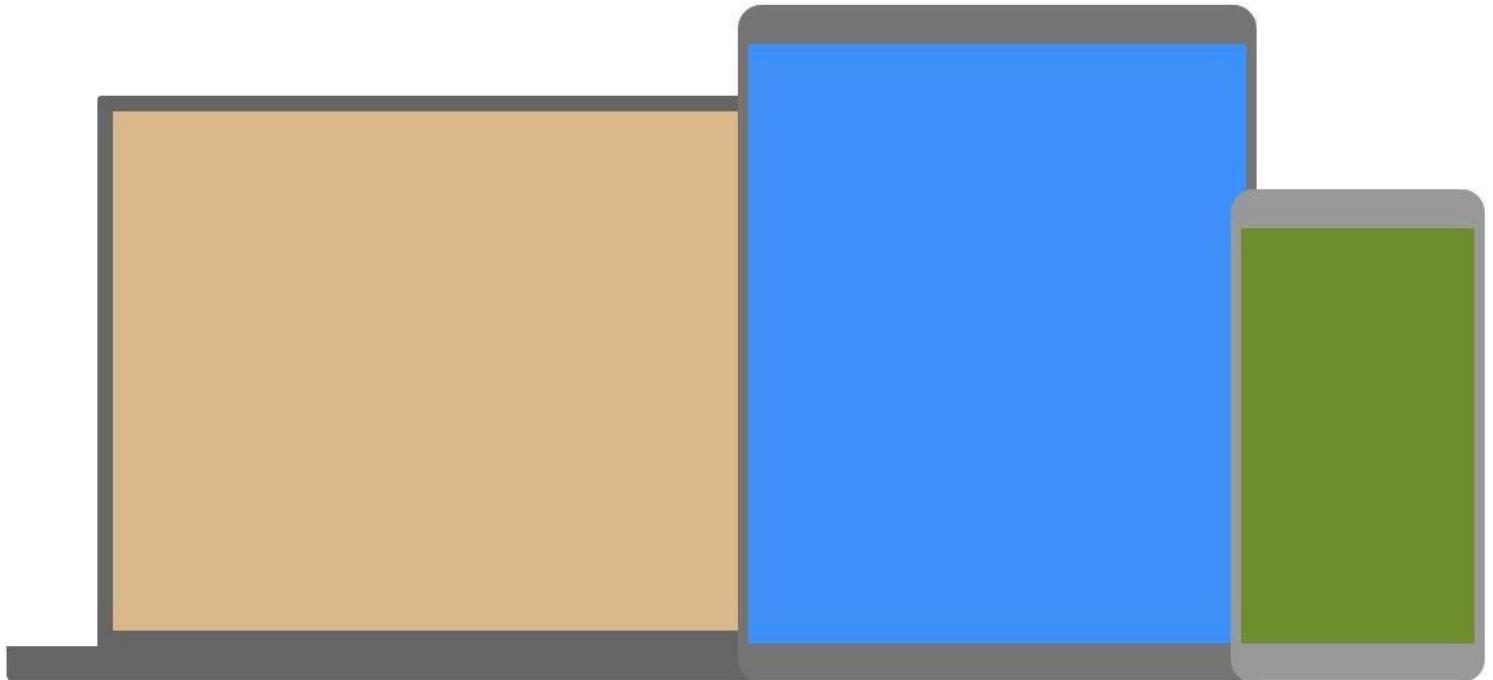
Push toggle (pushes content down)



# Namunalar (kenglikka nisbatan)

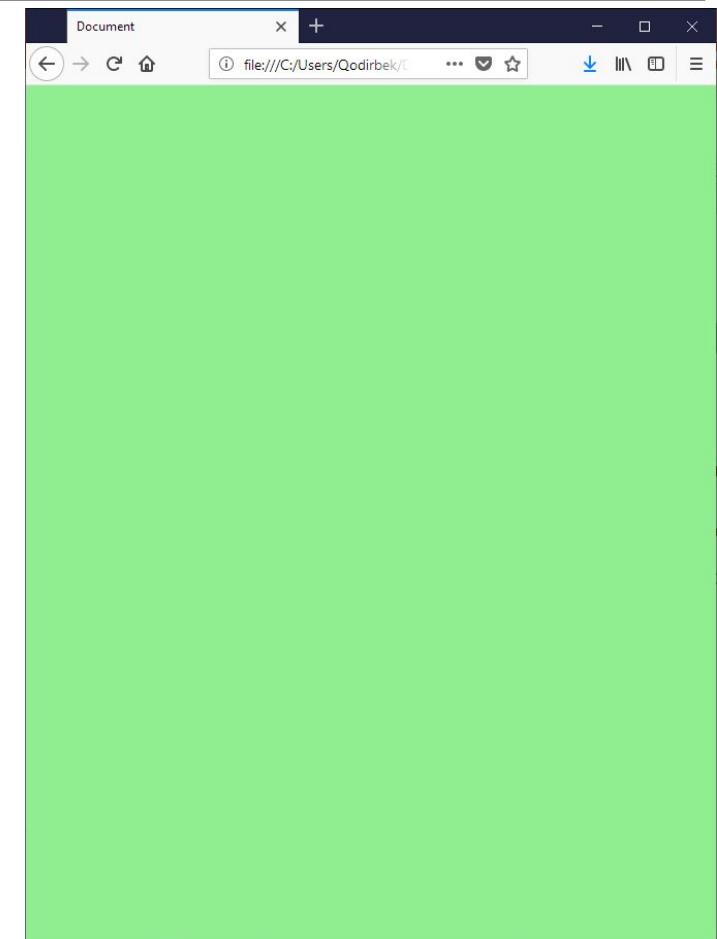
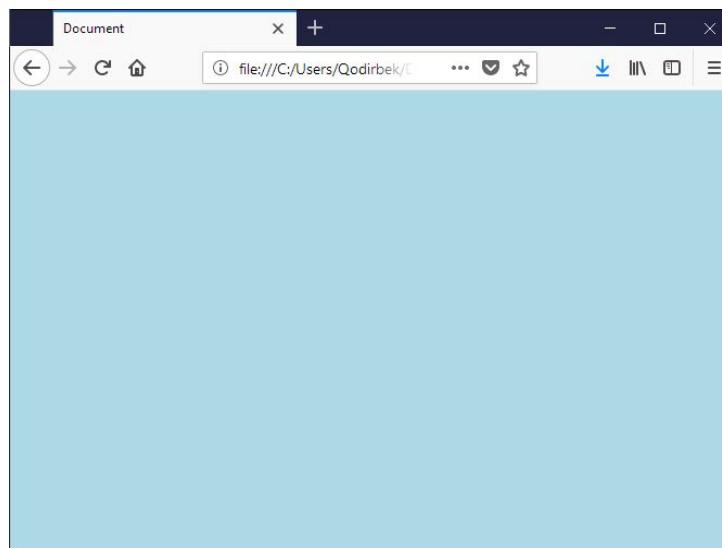
---

```
body {  
    background-color: tan;  
}  
  
/* maksimal kenglik 992px bo'lganda */  
@media screen and (max-width: 992px) {  
    body {  
        background-color: blue;  
    }  
}  
  
/* maksimal kenglik 600px bo'lganda */  
@media screen and (max-width: 600px) {  
    body {  
        background-color: olive;  
    }  
}
```



# Namunalar (orientatsiya)

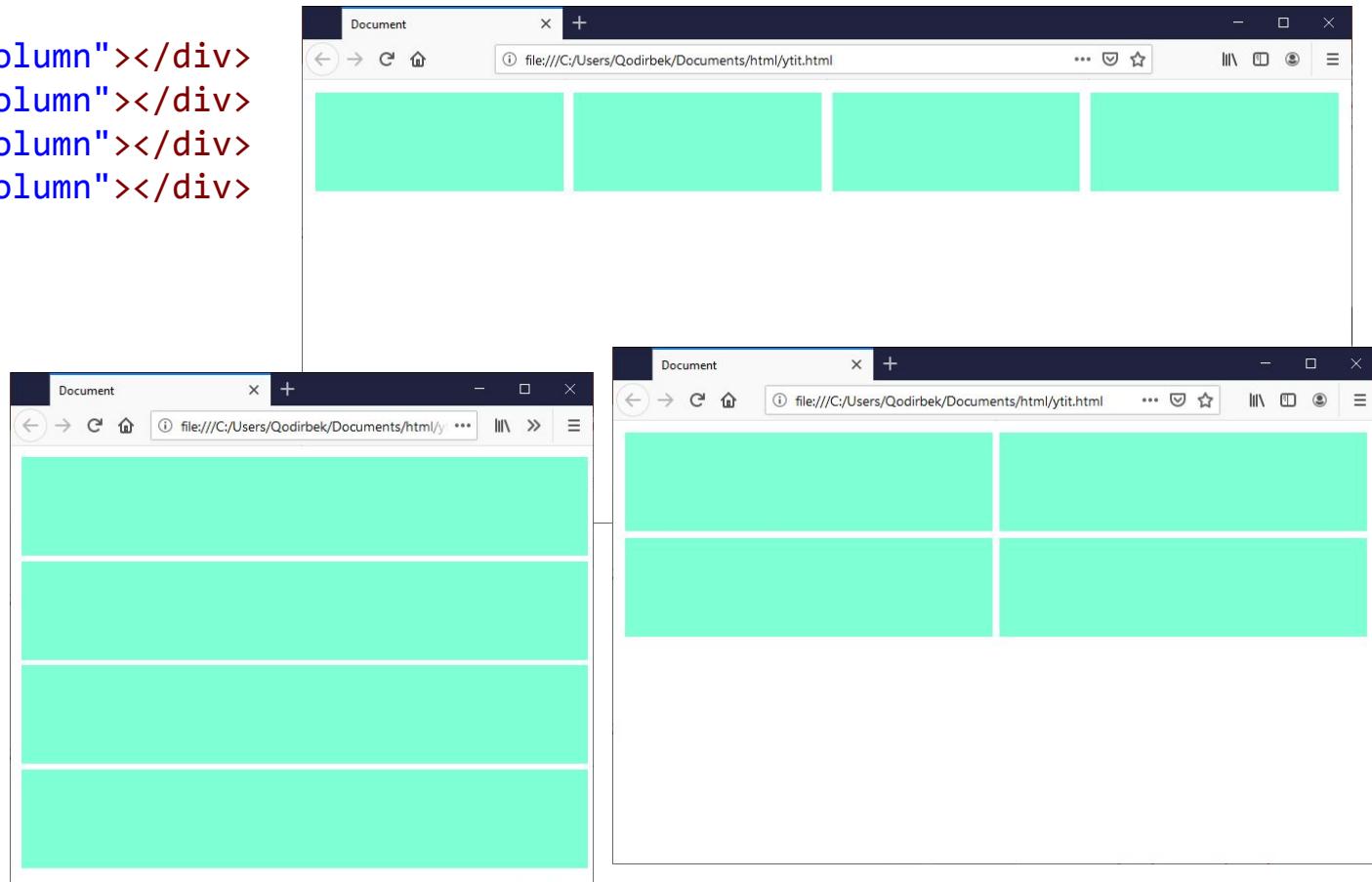
```
body {  
    background-color: lightgreen;  
}  
  
@media only screen and (orientation: landscape) {  
    body {  
        background-color: lightblue;  
    }  
}
```



# Namunalar (bloklar)

```
.column {  
    float: left;  
    width: 24%;  
    height: 100px;  
    background-color: aquamarine;  
    margin: 0.5%;  
}  
  
@media screen and (max-width: 992px) {  
    .column {  
        width: 49%;  
    }  
}  
  
@media screen and (max-width: 600px) {  
    .column {  
        width: 100%;  
    }  
}
```

```
<div>  
    <div class="column"></div>  
    <div class="column"></div>  
    <div class="column"></div>  
    <div class="column"></div>  
</div>
```



# Namunalar (menyu)

---

```
.topnav {  
    overflow: hidden;  
    background-color: #333;  
}  
  
.topnav a {  
    float: left;  
    display: block;  
    color: white;  
    text-align: center;  
    padding: 14px 16px;  
    text-decoration: none;  
}  
  
.topnav a:hover {  
    background-color: green;  
}
```

```
@media screen and (max-width: 600px) {  
    .topnav a {  
        float: none;  
        width: 100%;  
    }  
    ...  
    <div class="topnav">  
        <a href="#">Home</a>  
        <a href="#">Link 1</a>  
        <a href="#">Link 2</a>  
        <a href="#">Link 3</a>  
    </div>
```



# Savollar?

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