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V-Model

Snippet from [Wikipedia: V-model \(software development\)](#)

In software development, the **V-model** represents a development process that may be considered an extension of the waterfall model, and is an example of the more general V-model. Instead of moving down in a linear way, the process steps are bent upwards after the coding phase, to form the typical V shape. The V-Model demonstrates the relationships between each phase of the development life cycle and its associated phase of testing. The horizontal and vertical axes represent time or project completeness (left-to-right) and level of abstraction (coarsest-grain abstraction uppermost), respectively.

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```
<svg xmlns="http://www.w3.org/2000/svg"
xmlns:xlink="http://www.w3.org/1999/xlink"
xmlns:ev="http://www.w3.org/2001/xml-events"

xmlns:v="http://schemas.microsoft.com/visio/2
003/SVGExtensions/" width="7.50745in"
height="4.90025in"
viewBox="0 0 540.536 352.818"
xml:space="preserve" color-interpolation-
filters="sRGB" class="st13">
<v:documentProperties v:langID="1053"
v:metric="true" v:viewMarkup="false"/>

<style type="text/css">
<![CDATA[
.st1 {stroke:#4bacc6;stroke-
linecap:round;stroke-linejoin:round;stroke-
width:3}
.st2 {visibility:visible}
.st3 {fill:#000000;fill-
opacity:0.4;filter:url(#filter_2.666666746139
5);stroke:#000000;stroke-
linecap:round;stroke-linejoin:round;stroke-
opacity:0.4}
.st4 {fill:#ebf1df;stroke:#000000;stroke-
linecap:round;stroke-linejoin:round;stroke-
width:0.75}
.st5 {fill:#000000;font-
family:Arial;font-size:1.00001em}
.st6 {fill:#eeeaf2;stroke:#000000;stroke-
linecap:round;stroke-linejoin:round;stroke-
width:0.75}
.st7 {font-size:1em}
```

```
.st8 {fill:#fcebdd;stroke:#000000;stroke-
linecap:round;stroke-linejoin:round;stroke-
width:0.75}
.st9 {fill:#fff2cc;stroke:#000000;stroke-
linecap:round;stroke-linejoin:round;stroke-
width:0.75}
.st10 {marker-end:url(#mrkr13-60);marker-
start:url(#mrkr13-58);stroke:#4bacc6;stroke-
linecap:round;stroke-linejoin:round;stroke-
width:0.25}
.st11 {fill:#4bacc6;fill-
opacity:1;stroke:#4bacc6;stroke-
opacity:1;stroke-width:0.090252707581227}
.st12 {fill:#ffffff;stroke:none;stroke-
linecap:butt;stroke-width:7.2}
.st13 {fill:none;fill-rule:evenodd;font-
size:12px;overflow:visible;stroke-
linecap:square;stroke-miterlimit:3}
]]>
</style>

<defs id="Markers">
  <g id="lend13">
    <path d="M 3 1 L 0 0 L 3 -1 L 3 1 "
style="stroke:none"/>
  </g>
  <marker id="mrkr13-58" class="st11"
v:arrowType="13" v:arrowSize="2"
v:setback="31.8" refX="31.8" orient="auto"
markerUnits="strokeWidth"
overflow="visible">
    <use xlink:href="#lend13"
transform="scale(11.08) "/>
  </marker>
  <marker id="mrkr13-60" class="st11"
v:arrowType="13" v:arrowSize="2"
v:setback="33.24" refX="-33.24" orient="auto"
markerUnits="strokeWidth"
overflow="visible">
    <use xlink:href="#lend13"
transform="scale(-11.08,-11.08) "/>
  </marker>
</defs>
<defs id="Filters">
  <filter id="filter_2.6666667461395">
    <feGaussianBlur
stdDeviation="2.6666667461395"/>
  </filter>
</defs>
<g v:mID="0" v:index="1"
v:groupContext="foregroundPage">
```

```

<title>Page-1</title>
<v:pageProperties
v:drawingScale="0.0393701"
v:pageScale="0.0393701" v:drawingUnits="24"
v:shadowOffsetX="8.50394"
      v:shadowOffsetY="-8.50394"/>
  <g id="shape1-1" v:mID="1"
v:groupContext="shape"
transform="translate(346.177,-219.107)
rotate(51.141)">
    <title>Sheet.1</title>
    <path d="M0 352.82 L330.82 352.82"
class="st1"/>
  </g>
  <g id="shape2-4" v:mID="2"
v:groupContext="shape"
transform="translate(751.583,209.613)
rotate(125.996)">
    <title>Sheet.2</title>
    <path d="M0 352.82 L318.4 352.82"
class="st1"/>
  </g>
  <g id="shape3-7" v:mID="3"
v:groupContext="shape"
transform="translate(2.25368,-297.499)">
    <title>Sheet.3</title>
    <desc>Business Needs</desc>
    <v:textBlock
v:margins="rect(4,4,4,4)"
v:tabSpace="42.5197"/>
      <v:textRect cx="75.1571" cy="326.286"
width="150.32" height="53.0653"/>
      <g id="shadow3-8"
v:groupContext="shadow"
v:shadowOffsetX="2.12132"
v:shadowOffsetY="-2.12132" v:shadowType="1"
transform="matrix(1,0,0,1,2.12132,2.12132)"
class="st2">
        <rect x="0" y="299.753"
width="150.314" height="53.0653"
class="st3"/>
      </g>
      <rect x="0" y="299.753"
width="150.314" height="53.0653"
class="st4"/>
      <text x="31.8" y="329.89" class="st5"
v:langID="1033"><v:paragraph
v:horizAlign="1"/><v:tabList/>Business
Needs</text>
    </g>
  <g id="shape4-13" v:mID="4"
v:groupContext="shape"

```

```
transform="translate(383.726, -297.499)">
  <title>Sheet.4</title>
  <desc>User acceptance test</desc>
  <v:textBlock
v:margins="rect(4,4,4,4)"
v:tabSpace="42.5197"/>
  <v:textRect cx="75.1571" cy="326.286"
width="150.32" height="53.0653"/>
  <g id="shadow4-14"
v:groupContext="shadow"
v:shadowOffsetX="2.12132"
v:shadowOffsetY="-2.12132" v:shadowType="1"
transform="matrix(1,0,0,1,2.12132,2.12132)"
class="st2">
    <rect x="0" y="299.753"
width="150.314" height="53.0653"
class="st3"/>
  </g>
  <rect x="0" y="299.753"
width="150.314" height="53.0653"
class="st4"/>
  <text x="18.79" y="329.89"
class="st5" v:langID="1033"><v:paragraph
v:horizAlign="1"/><v:tabList/>User acceptance
test</text>      </g>
  <g id="shape5-19" v:mID="5"
v:groupContext="shape"
transform="translate(43.7654, -213.611)">
  <title>Sheet.5</title>
  <desc>High-level design System
specification</desc>
  <v:textBlock
v:margins="rect(4,4,4,4)"
v:tabSpace="42.5197"/>
  <v:textRect cx="75.1571" cy="326.286"
width="150.32" height="53.0653"/>
  <g id="shadow5-20"
v:groupContext="shadow"
v:shadowOffsetX="2.12132"
v:shadowOffsetY="-2.12132" v:shadowType="1"
transform="matrix(1,0,0,1,2.12132,2.12132)"
class="st2">
    <rect x="0" y="299.753"
width="150.314" height="53.0653"
class="st3"/>
  </g>
  <rect x="0" y="299.753"
width="150.314" height="53.0653"
class="st6"/>
  <text x="29.13" y="322.69"
class="st5" v:langID="1033"><v:paragraph
```

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v:horizAlign="1"/><v:tabList/>High-level
design<v:newlineChar/><tspan
      x="20.47" dy="1.2em"
class="st7">System
specification</tspan></text>
      <g id="shape6-26" v:mID="6"
v:groupContext="shape"
transform="translate(351.223, -213.611)">
      <title>Sheet.6</title>
      <desc>System tests Integrations
tests</desc>
      <v:textBlock
v:margins="rect(4,4,4,4)"
v:tabSpace="42.5197"/>
      <v:textRect cx="75.1571" cy="326.286"
width="150.32" height="53.0653"/>
      <g id="shadow6-27"
v:groupContext="shadow"
v:shadowOffsetX="2.12132"
v:shadowOffsetY="-2.12132" v:shadowType="1"
transform="matrix(1,0,0,1,2.12132,2.12132)"
class="st2">
      <rect x="0" y="299.753"
width="150.314" height="53.0653"
class="st3"/>
      </g>
      <rect x="0" y="299.753"
width="150.314" height="53.0653"
class="st6"/>
      <text x="40.81" y="322.69"
class="st5" v:langID="1033"><v:paragraph
v:horizAlign="1"/><v:tabList/>System
tests<v:newlineChar/><tspan
      x="29.46" dy="1.2em"
class="st7">Integrations tests</tspan></text>
</g>
      <g id="shape7-33" v:mID="7"
v:groupContext="shape"
transform="translate(99.1144, -129.722)">
      <title>Sheet.7</title>
      <desc>Low level design Design &#38;
construction</desc>
      <v:textBlock
v:margins="rect(4,4,4,4)"
v:tabSpace="42.5197"/>
      <v:textRect cx="75.1571" cy="326.286"
width="150.32" height="53.0653"/>
      <g id="shadow7-34"
v:groupContext="shadow"
v:shadowOffsetX="2.12132"
v:shadowOffsetY="-2.12132" v:shadowType="1"

```

```
transform="matrix(1,0,0,1,2.12132,2.12132)"
class="st2">
    <rect x="0" y="299.753"
width="150.314" height="53.0653"
class="st3"/>
</g>
    <rect x="0" y="299.753"
width="150.314" height="53.0653"
class="st8"/>
    <text x="30.79" y="322.69"
class="st5" v:langID="1033"><v:paragraph
v:horizAlign="1"/><v:tabList/>Low level
design<v:newlineChar/><tspan
x="16.79" dy="1.2em"
class="st7">Design </tspan>&#38;
construction</text>
    <g id="shape8-40" v:mID="8"
v:groupContext="shape"
transform="translate(306.673, -129.722)">
    <title>Sheet.8</title>
    <desc>Unit tests</desc>
    <v:textBlock
v:margins="rect(4,4,4,4)"
v:tabSpace="42.5197"/>
    <v:textRect cx="75.1571" cy="326.286"
width="150.32" height="53.0653"/>
    <g id="shadow8-41"
v:groupContext="shadow"
v:shadowOffsetX="2.12132"
v:shadowOffsetY="-2.12132" v:shadowType="1"
transform="matrix(1,0,0,1,2.12132,2.12132)"
class="st2">
    <rect x="0" y="299.753"
width="150.314" height="53.0653"
class="st3"/>
    </g>
    <rect x="0" y="299.753"
width="150.314" height="53.0653"
class="st8"/>
    <text x="50.15" y="329.89"
class="st5" v:langID="1033"><v:paragraph
v:horizAlign="1"/><v:tabList/>Unit
tests</text>
    <g id="shape9-46" v:mID="9"
v:groupContext="shape"
transform="translate(203.842, -39.8918)">
    <title>Sheet.9</title>
    <desc>Code</desc>
    <v:textBlock
v:margins="rect(4,4,4,4)"
v:tabSpace="42.5197"/>
```

```

        <v:textRect cx="75.1571" cy="326.286"
width="150.32" height="53.0653"/>
        <g id="shadow9-47"
v:groupContext="shadow"
v:shadowOffsetX="2.12132"
v:shadowOffsetY="-2.12132" v:shadowType="1"
transform="matrix(1,0,0,1,2.12132,2.12132)"
class="st2">
            <rect x="0" y="299.753"
width="150.314" height="53.0653"
class="st3"/>
        </g>
        <rect x="0" y="299.753"
width="150.314" height="53.0653"
class="st9"/>
        <text x="60.81" y="329.89"
class="st5" v:langID="1033"><v:paragraph
v:horizAlign="1"/><v:tabList/>Code</text>
</g>
        <g id="shape10-52" v:mID="10"
v:groupContext="shape"
transform="translate(152.568, -329.215)">
            <title>Sheet.10</title>
            <desc>Meets the need?</desc>
            <v:textBlock
v:margins="rect(4,4,4,4)"
v:tabSpace="42.5197"/>
            <v:textRect cx="115.579" cy="352.818"
width="231.16" height="0"/>
            <path d="M7.95 352.82 L8.31 352.82
L222.85 352.82" class="st10"/>
            <rect v:rectContext="textBkgnd"
x="70.8799" y="345.618" width="89.3979"
height="14.4001" class="st12"/>
            <text x="70.88" y="356.42"
class="st5" v:langID="1033"><v:paragraph
v:horizAlign="1"/><v:tabList/>Meets the
need?</text>
        </g>
        <g id="shape11-63" v:mID="11"
v:groupContext="shape"
transform="translate(194.08, -245.83)">
            <title>Sheet.11</title>
            <desc>Is correct built?</desc>
            <v:textBlock
v:margins="rect(4,4,4,4)"
v:tabSpace="42.5197"/>
            <v:textRect cx="77.0526" cy="352.818"
width="154.11" height="0"/>
            <path d="M7.95 352.82 L8.31 352.82
L145.8 352.82" class="st10"/>
            <rect v:rectContext="textBkgnd"

```

```
x="36.3702" y="345.618" width="81.3647"
height="14.4001" class="st12"/>
    <text x="36.37" y="356.42"
class="st5" v:langID="1033"><v:paragraph
v:horizAlign="1"/><v:tabList/>Is correct
built?</text>          </g>
</g>

</svg>
```

[kb](#), [requirements](#), [test](#), [devopsverify](#), [projects](#)

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