



Software Development Life Cycle

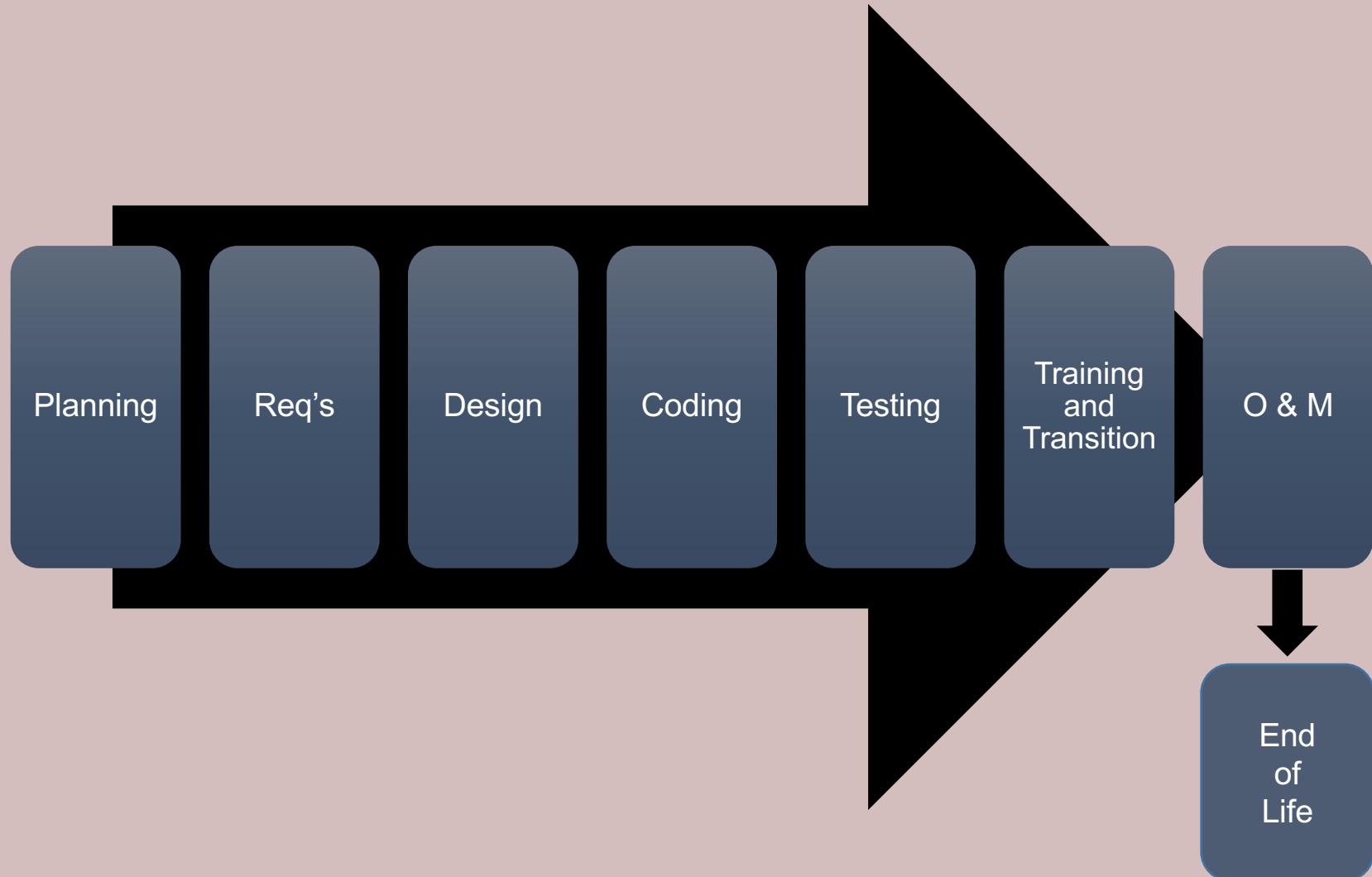
Security Architecture & Tool Sets

Software Development Life Cycle (SDLC)

- Software development doesn't always follow formal models
- Many different forms of SDLC... but all share 8 basic functions/phases
- SDLC can also be used for applications, services, systems, or other desired outputs
- Planning for security early in the process will provide better security at a cheaper price...



Software Development Life Cycle (SDLC)



Planning

- Initial investigations into the effort conducted
- Determines feasibility of designing the desired software, costs, and any alternate solutions
- End result: decision to move forward or not



Requirements

- Gain customer or stakeholder input to determine required functionality
- What should the program do?
- What does your current program not do?



Design

- Creates designs for functionality, architecture, integration points, techniques, data flows, processes, and other elements



JASON DION
TRAINING THE CYBER SECURITY WORKFORCE

Coding

- Programmers start writing the code for the software and conduct testing of individual units of code and through code analysis

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<div class="col-md-12 col-sm-12 text-center wow fadeInDown"  
     data-wow-duration="500ms" data-wow-delay="200ms">  
    <div class="counters-item">  
      <div>  
        <span data-speed="3000" data-to="565">565</span>  
      </div>  
      <i class="fa fa-check-square fa-3x"></i>  
      <h3>Projects completed</h3>  
    </div>  
  </div>  
  <!-- end first count item -->  
  
<div class="col-md-3 col-sm-6 col-xs-12 text-center wow fadeInDown"  
     data-wow-duration="500ms" data-wow-delay="200ms">  
    <div class="counters-item">  
      <div>  
        <span data-speed="3000" data-to="95">95</span>  
      </div>  
      <i class="fa fa-thumbs-up fa-3x"></i>  
      <h3>Positive feedback</h3>  
    </div>  
  </div>  
  <!-- end second count item -->  
  
<div class="col-md-3 col-sm-6 col-xs-12 text-center wow fadeInDown"  
     data-wow-duration="500ms" data-wow-delay="400ms">  
    <div class="counters-item">  
      <div>  
        <span data-speed="3000" data-to="95">95</span>  
      </div>  
      <i class="fa fa-thumbs-up fa-3x"></i>  
      <h3>Positive feedback</h3>  
    </div>  
  </div>  
  <!-- end third count item -->  
  
<div class="col-md-3 col-sm-6 col-xs-12 text-center wow fadeInDown"  
     data-wow-duration="500ms" data-wow-delay="600ms">  
    <div class="counters-item kill-margin-bottom">  
      <div>  
        <span data-speed="3000" data-to="2500">2500</span>  
      </div>
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.media .  
.navbar-inverse .navbar-nav>li> {  
  padding: 30px 10px;  
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.navbar-inverse.smaller .navbar-nav>li> {  
  padding: 20px 10px;  
}  
.navbar-inverse .navbar-nav>li {  
  padding-right: 0;  
}  
#slitSlider .carousel-caption h2 {  
  font-size: 50px;  
}  
.nav-dots {  
  display: block;  
}  

```



Testing

- Formal testing with outside development team (stakeholders, customers, beta group, etc)
- User Acceptance Testing ensure users are satisfied with the functionality



Training and Transition

- Ensures the end users are trained on software
- Consists of acceptance, installation, and deployment of software into live environment



Operations and Maintenance

- Longest phase of the SDLC
- Patching, updating, modification, and daily support for the new software occurs



End of Life

- Disposition and retirement of the software
- How will you stop supporting the software?
- Will you migrate users to a new version?



Software Development Life Cycle (SDLC)

