

www development

hard work after creative design

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programming = coding

- **web development** usually refers only to the non-design aspects of building web sites, e.g. **coding**
- **computer programming** (often shortened to **programming** or **coding**) is the process of writing, testing, and maintaining the source code of computer programs.
- computer programs = software products

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sdlc

- a **software development life cycle** is a structure imposed on the development of a software product.
- 7 essential phases
 - feasibility study (assuming it's feasible replaced by planning)
 - analysis
 - design (specification NOT graphic design)
 - development
 - testing
 - implementation
 - maintenance

sdlc phases

- **planning** - establishing the plans for creating an information system by:
 - # defining the system to be developed
 - # the project scope
 - # developing the project plan
 - # managing and monitoring the project plan
- **analysis** - collect, comprehend, and logistically formalize business requirements by:
 - # gathering the business requirements
 - # analyzing the requirements
- **design** - technical blueprint of the system is created by:
 - # designing the technical architecture
 - # designing the systems model
- **development** - executing the design into a physical system by:
 - # building the technical architecture
 - # building the database and programs

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sdlc phases cont'd

- **testing** - *testing the developed system*
 - # write the test conditions
 - # test across multiple software and hardware platforms
- **implementation** - the systems are placed and used in the actual workforce
 - # the user guide is created
 - # training is provided to the users of the system - usually through workshops or online
- **maintenance** - keeping the system up to date with the changes in the organization and ensuring it meets the goals of the organization by:
 - # building a help desk to support the system users – dedicated team available to aid technical difficulties and answer questions
 - # implementing changes to the system when necessary

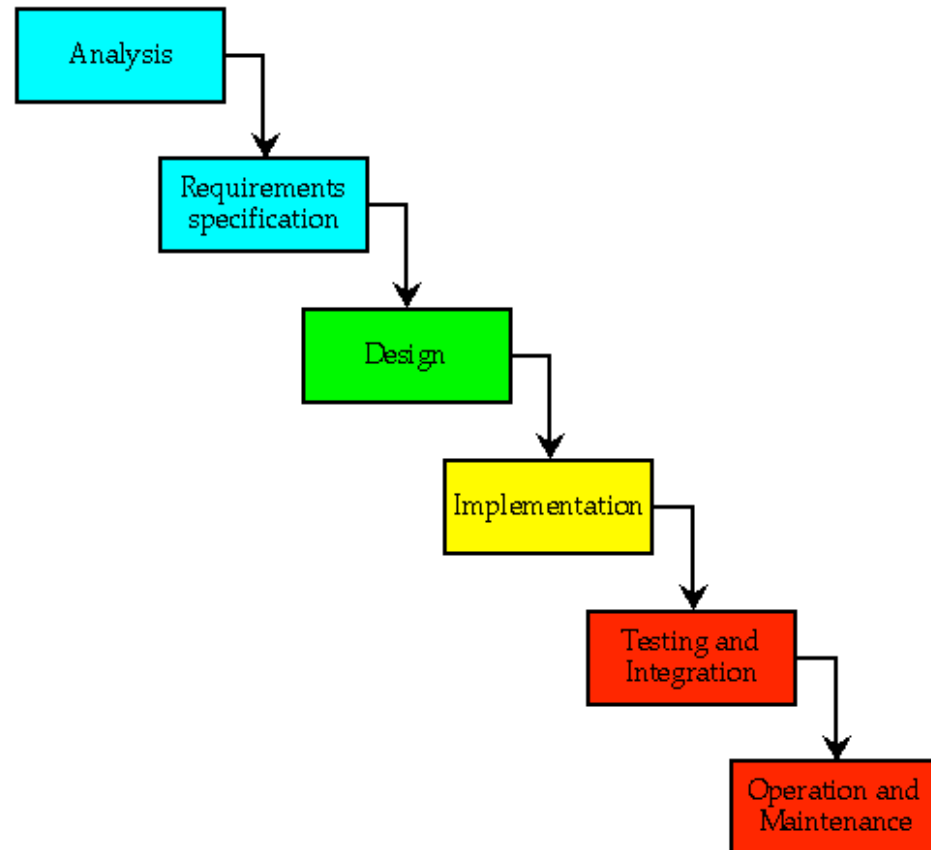
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sdlc processes / models

- a decades-long goal has been to find repeatable, predictable processes or methodologies that improve productivity and quality.
- some try to systematize or formalize the seemingly unruly task of writing software. others apply project management techniques to writing software. without project management, software projects can easily be delivered late or over budget.
- best-practice models
 - # waterfall model
 - # spiral model
 - # top-down and bottom-up design
 - # prototyping
 - # ICONIX process (UML-based object modelling with use cases)
 - # unified process (UP)
 - # V-model
 - # eXtreme programming (XP)
 - # incremental funding methodology
 - # rapid application development (RAD)

waterfall

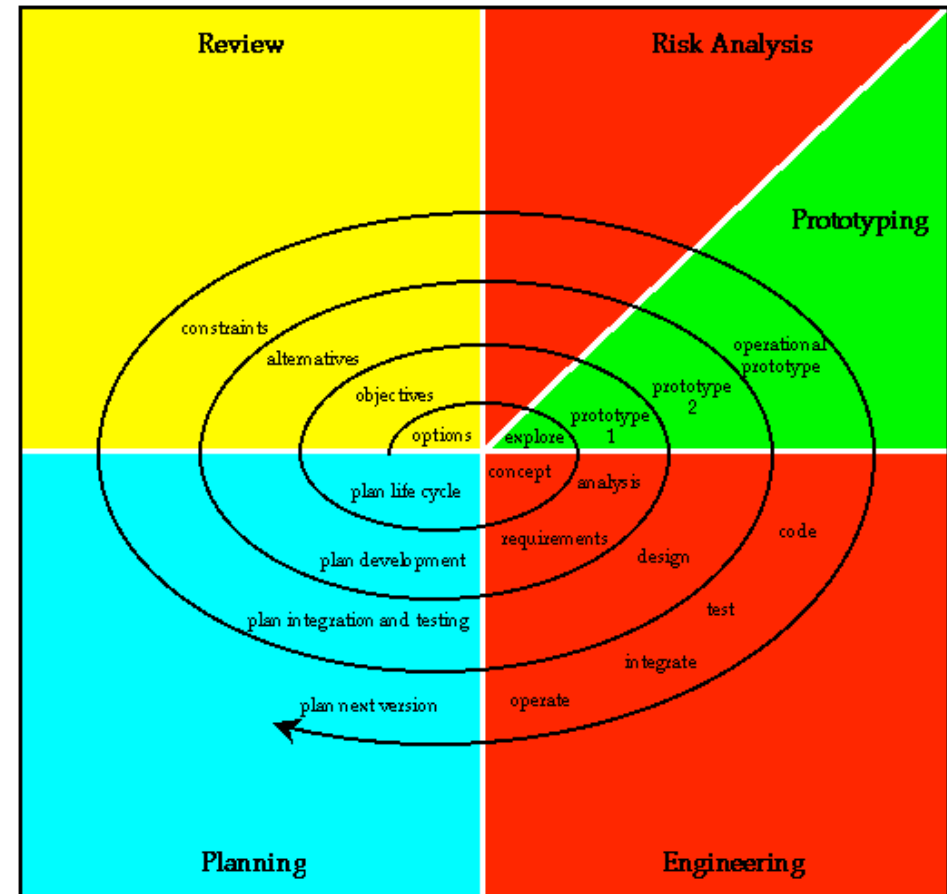
- **central idea** - time spent early on making sure that requirements and design are absolutely correct is very useful in economic terms.
- make sure that each **phase** is 100% complete and absolutely correct before proceeding to the next phase of program creation.
- program **requirements** should be set in stone before design is started.
- follows **sdlc** natural flow



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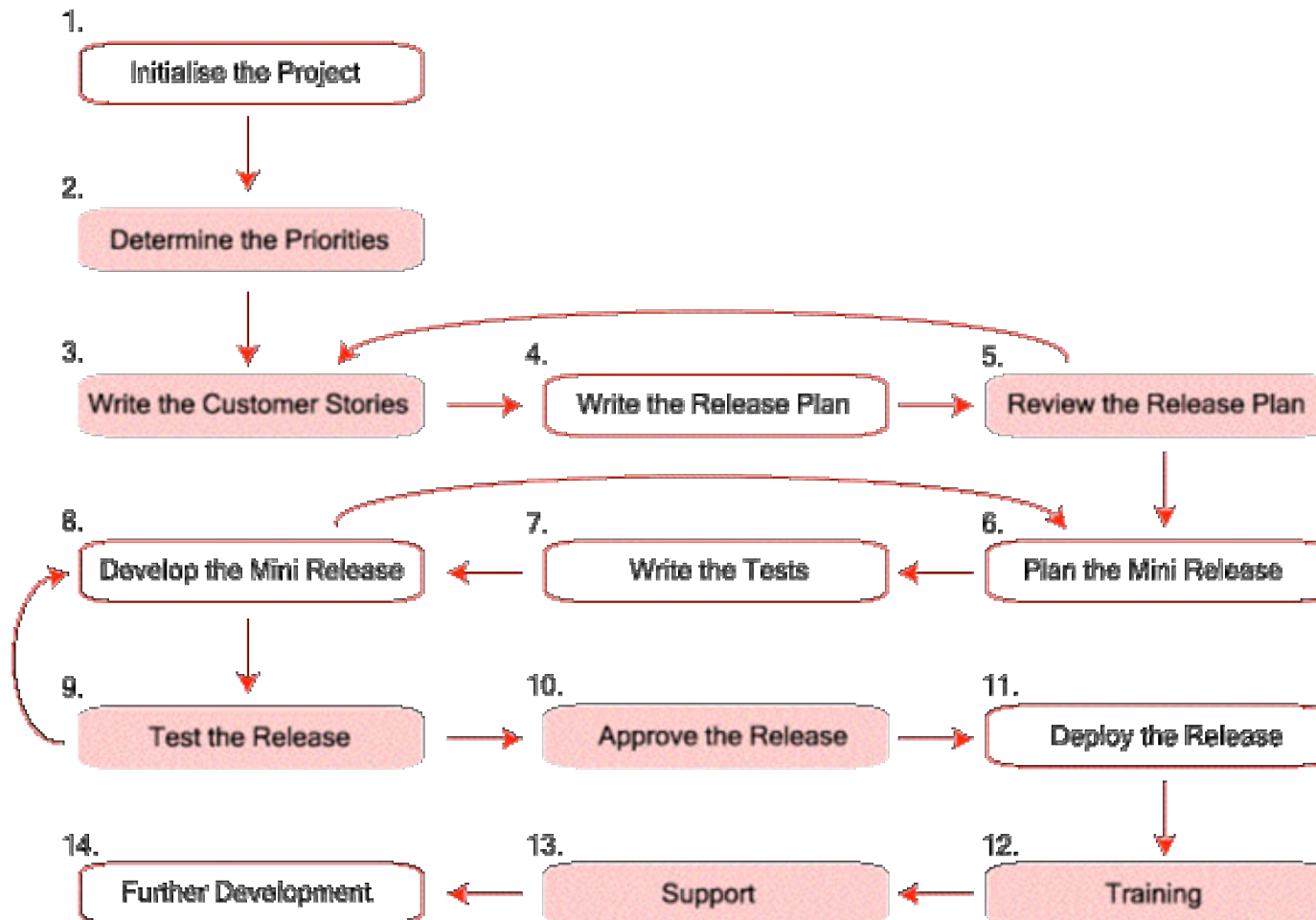
spiral

- this model of **development** combines the features of the prototyping model and the waterfall model.
- the spiral model is intended for large, expensive, and **complicated** projects.
- for a typical shrink-wrap application, the spiral model might mean that you have a rough-cut of user elements (without the polished / pretty graphics) as an operable application, add features in phases, and, at some point, add the final graphics.



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xp



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languages

- Client Side Coding
 - CSS
 - XHTML (XHTML is replacing the older HTML)
 - Javascript
 - Flash
- Server Side Coding
 - PHP and MySQL
 - ASP and MSSQL
 - ASP.NET and MSSQL
 - CGI and/or Perl
 - Java, e.g. J2EE or WebObjects
 - Python, e.g. Django (web framework)
 - Ruby, e.g. Ruby on Rails
 - ColdFusion
- Interdisciplinary roles:
 - Graphic design / web design
 - Information architecture and copywriting/copyediting with web usability, accessibility and SEO
 - Project management, Quality Assurance and other aspects common to IT development

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wdwd

- team of dedicated project managers, software engineers, db specialists, programmers, analysts, optimizers, gui developers, testers.
- combine knowledge, skills and requirements to decide on technology, methodology, programming language, database, interface, and other necessary elements to create efficient and easy-to-use applications and software products.
- use technology to drive the software towards designed and branded application

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q&a

thank you for your attention.

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