RUP:

- Rational Unified Processes.
- It is a software engineering process management tool encapsulating best practices in software development and maintenance.RUP includes following some of the best practices:
    - Iterative and incremental development of software.
    - Requirements management.
    - Software components reuse.
    - Visual Modelling.
    - Software quality verification.
    - Software configuration.
    - Software change management.
- RUP consists of well defined sequential phases for iterative development of software.

RUP includes following phases:

1. Inception
2. Elaboration
3. Construction
4. Transition

1. Inception Phase:

- During it development team develop scope of project.
- Stakeholder of the project are identified.

- Stakeholders interfaces with project are identified.
- All use cases are identified.
- Risk management plan is developed.
- Cost as well as schedule estimations are developed.
- Its main outputs are:

- Vision and scope documents.
- Initial risk management plan.
- Initial use case model.
- Initial prototype.

2. Elaboration Phase:

- Use model is formalized.
- Executable prototype is implemented.
- Its main outputs are:

- Use case model
- Non functional requirements specification.
- Revised and complete project plan.
- Revised risk management plan.
- More accurate estimation of the cost and time needed in project development.
- An executable prototype.

3. Construction Phase:

- Software is designed, integrated and implemented.
- Its main outputs are:

- Software design document.
- Software Product.
- Installation document.
- Manual document.
- All other documents which required.

4. Transition Phase:

- The software is deployed.
- The software is made ready for the use of user.
- Product is validated.
- Necessary database conversions are performed.
- Training for software use is provided.
- Software is distributed to the users via available channels or marketing.

RUP Workflows:

- Business Modelling
- Requirements
- Analysis and Design
- Implementation
- Testing

- Deployment

- Project management

- Configuration and change management

- Environment