

# Auction Sphere

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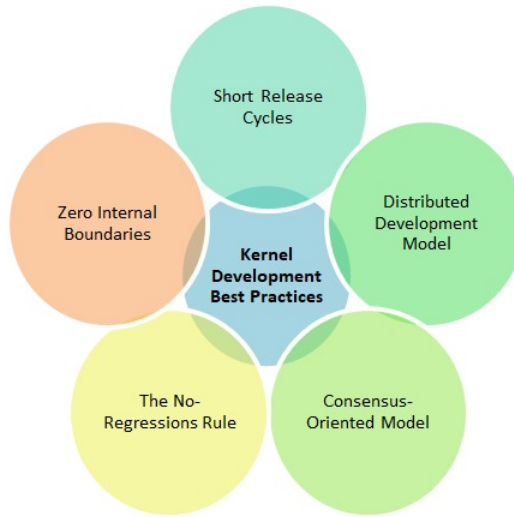


Figure 1: Linux Kernel Best Development practices

## ABSTRACT

## KEYWORDS

Auction System, Bidding, Software Engineering

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## 1 DISTRIBUTED DEVELOPMENT MODEL

## 2 SHORT RELEASE CYCLES

Earlier, major releases were done once in few years which caused delays in getting new features to customers and also resulted in large pieces of code being merged together to the old code. Short release cycles ensure that enhancements and bug fixes are incorporated regularly resulting in no or very minimal integration issues. Short release cycles are measured in the rubric as well. Version control tools help make short release cycles possible which is measured in the rubric point- "Short release cycles"

## 3 THE NO-REGRESSIONS RULE

Regression testing is done to avoid changing existing functionality when there are changes made to the existing code-base or a new feature is added. This assures users there won't be any change in the existing functionality of the application.

The following measures are in place to ensure this holds:

- Usage of version control tools
- Test cases exist and cover more than 30% of the code base

- Test cases are executed when new changes are pushed to the code base

#### 4 ZERO INTERNAL BOUNDARIES

All 5 people on our team are using the same tools for development - React.js, Flask, and SQLite, and everyone has access to these tools. Further, we have one public repository with all the code of our project including frontend and backend - and although some contributors have more contributions in the React frontend, some more in the backend, everyone has access to changing both parts of the project as required. All contributors are able to install dependencies and run the React application as well as the Flask server. This practice is enabling easier debugging of issues. For instance, if an API call fails at the frontend, the frontend contributor can look at the specific backend endpoint and figure out what the problem could've been right there and then.

#### 5 CONSENSUS ORIENTED MODEL

Consensus Oriented Model means that any changes to the project must be approved by majority contributors of the project. This helps in making sure that none of the code base is jeopardized when a new update is made. It also helps in verifying correctness of the code that is being released. One of the best practices is to schedule meetings to address open issues during the project development. This discussion ensures that the solution to the problem is acknowledged by the other developers and the code does not conflict with any previously written code. Even after pushing the new changes to GitHub, many tests are rigorously conducted to make sure the code is working fine. Following are the rubrics associated to these practices:

- Issue reports: there are many.
- Issues are being closed.
- Issues are discussed before they are closed.