DAY6 SESSION ASSIGNMENTS(Theory)

ACADGILD

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**1.How do you evaluate the performance of a project in agile?**

Agile method doesnot stick on to evaluation based on quality,cost and effort.

The management measures for agile are:

**i)Cost Performance Index (CPI)** : Measures if we are getting the story points we are paying for.It is a measure of the efficiency of expenses spent on a project.

Cost Performance Index (CPI) = (Baseline Cost per Story Point)/(Actual Cost per Story Point)

A value higher than one indicates a favourable condition, while a value under one would be considered unfavorable.

**ii)schedule performance index(SPI)** : Measures if we are getting the story points at the rate wew expected.The Schedule Performance Index indicates how efficiently you are actually progressing compared to the planned progress.It gives information about the schedule performance of the project. It is the efficiency of the time utilized on the project.

Schedule Performance Index (SPI) = (Actual Velocity/Baseline Velocity)

SPI = CPI = 1 : means that the project development is as according to the plan.

**iii)Earned Business Value(EBV)**:EBV is the sum of all the business values for those stories that are complete

**iv)velocity**:velocity is the units of effort completed per sprint.

**v)Hit rate** :It is the percentage of work allocated to a timebox that was actually completed.

**vi)Work Remaining on Tasks:-** Each day the team estimates the work remaining on each active task. We use burndown charts to find the remaining work. Normally,the remaining task will go down as times goes.But it may increase if the complexity of the project is higher.

vii)Sprint report card

viii)end of sprint diagnostics

ix)project report card

x)product owner report card

xi)project peer review

xii)annual agile performance review

**2.Compare traditional monitoring & control with agile monitoring & control with respect to metrics generation**

**Traditional monitoring**

* It measures actual performance against the plan
* factors such as cost , quality and effort are given importance

|  |  |
| --- | --- |
| **Traditional** | **Agile** |
| Adhere to plans | Focuses on customer interaction and customer satisfaction |
| Control over change in plan | Adaptable and responsive to change |
| Complete planning occurs at the initial stage | Evolutionary process |
| Work breakdown structure drives the activities | Team commits to implement changes |
| Top down control | Self managed teams |
| rely on metrics and controls that often may not even be adding value to the team. | Agile metrics focus on customer value |

**Agile monitoring**

* **Frequent delivery:-**Working software is the primary measure of progress.

-highest priority is to satisfy the customer through early and continuous delivery of valuable software.

* **Colocation:** developers and other team members should work together throughout the project
* **Daily Team Meeting:-**short meetings that adhere to tghe topics are organised daily

-questions are raised during meetings,but solutions are found offline

Team focuses on 3 questions

–What have you achieved since the last Daily Team Meeting?

–What will you achieve between now and the next Daily Team Meeting?

–What is getting in your way?

* **Timebox Review Meeting:**project demonstration and retrospective

**3.With a total project budget of $ 175,000, and having completed one out of**

**four Iterations, we have this product backlog and these actuals:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Feature** | **Estimate**  **(storypoints)** | **Completed**  **(storypoints)** | **Actual Cost (1000s**  **dollars)** |
| Welcome Screen | 10 | 10 | 15 |
| Advert  -Splash Screen | 20 | 20 | 30 |
| Login Screen | 10 | 10 | 20 |
| Personalized Google Ads | 20 |  |  |
| Catalog Browser | 20 |  |  |
| Catalog Editor | 10 |  |  |
| Shopping Basket Browser | 5 |  |  |
| Shopping Card Editor | 25 |  |  |
| Check  -  out Process | 20 |  |  |
| Invoice Calculation | 10 |  |  |
| Credit Card Verification | 10 |  |  |
| PayPal Payment Handling | 20 |  |  |
| Order Confirmation Email | 20 |  |  |
| Totals | 200 | 40 | 65 |

in our example, after Iteration 1 we should be at 25% complete)

* Calculate Planned Value
* Actual % Complete
* Earned Value

>work expected to be completed in first sprint=25%

Expected cost after first sprint=25% of (Total Project cost)

=(25/100)\*1,75000

=43750

>Percentage of work completed after first iteration=(40/200)\*100=20%

>Since only 20% of the total work has been completed

earned value=(20/100)\*175000=35000