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Scrum Based Scaling Using Agile Method to Test Software Projects Using Artificial Neural Networks for Block Chain

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ABSTRACT

Nowadays the product advancement steps are obvious and unavoidable in creating programming projects. Each day programming requests have has been filling in this field, gives new creative thoughts and backing to consolidate the client needs in programming improvement. In this paper Agile techniques with adaptability have been engaged which are very essential to pre-arranging programming improvement measure and business cost assessment. It has not given an ideal answer for all tasks in previous history. Along these lines, in this paper, scrum methodology is applied which depends on Agile techniques with versatility projects, furthermore, are assessed by a portion of the standards, for example, work point, use case point, object point, and storyboard focuses based exertion assessment boundaries like the cascade model, winding model, what's more, quick improvement model. In any case, none of them gives an exact result. The primary purpose behind the greater part of the tasks disappointment is on the grounds that of wrong assessment. So scrum-based dexterous technique with expanded form giving sensible exact outcome in created programming projects is viewed as which is assessed utilizing different measurements. Scrum methodology with agile strategy is utilized on various activities. It is developed dependent on a lithe system. Its classifications are assessed in the AI technique, whose outcomes are dispensed dependent on various kinds, for example, little projects, medium activities, and enormous undertakings which are assessed in expanded renditions of scrum based Agile strategies. They understand 70% of programming dependent on nimble strategies. Its assessment results are advocated in the AI cycles, for example, Bayesian regression using back propagation neural networks for block chain.

KEYWORDS

Block chain, Artificial Neural Networks, Agile, Scrum, DAD, RDSF

1. INTRODUCTION

Programming advancement and assessment are vital to the business instance of building programming [1]. They measure the assessment on a few individuals required for building a venture, where group size and time required are significant for finishing projects inside objective timetable. In 70% of programming, project businesses the traditional cycle models are followed, for example, an Agile strategy [2]. Deft is a product item advancement model association, which coordinated a little undertaking and finished inside time. It is utilized to display programming projects. It has arisen as a major testing issue in taking care of enormous size projects. Also, Agile ace meets out, significant issues in developing an extremely enormous size of

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programming and it is hard to finish in less time. So scrum based spry model gives a savvy answer for the issue. [3]Scrum-based lithe techniques are the most popular and current for right now. What's more, it is a light-weight system. It is utilized it for the little size projects with less group size. There are numerous product organizations those utilization scrum-based coordinated techniques. Scrum jobs [3]: Scrum has three significant jobs which are group, scrum expert, and item proprietor. The group involves engineer and analyzer, who produce codes and test it. The consequence of a group is put away in a few runs dependent on the coordinated technique [4]. The run data is checked whether or then again not attachments are together. The scrum ace takes full duty regarding the product improvement measure. It points to run and organize the different programming improvement processes, which interface between the product engineer and client, give a few overabundances wherein the scrum ace takes choice by using certain excesses for building programming. [5] Meta scrum turned into the essential dynamic technique. While numerous light-footed strategies know about group rehearses, the particular strategy is generally significant. Thinking about these elements to colleagues, the business case endorsement gives a conclusive underwriting on the spending plan or by reaching the connected sellers. Scrum is a notable innovation and is a unique technique. The scrum based scaling utilizing Agile technique's guidelines are characterized by its alliance and incorporates the least practices, the item proprietor, the scrum ace, and the cross-work gathering.

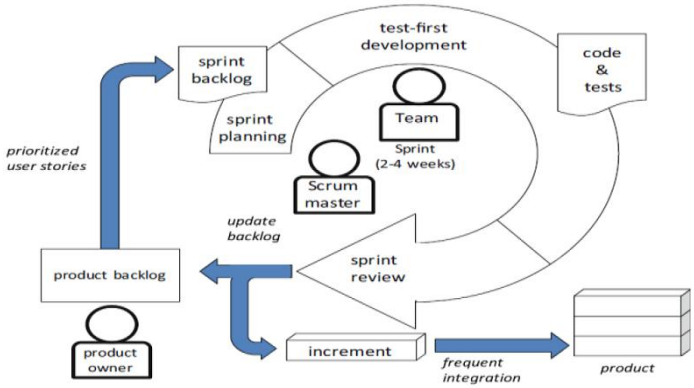

Figure 1 Agile model for software development practices

Figure 1 show the collaboration between the item proprietors also, item ace, the item proprietor gives a few excesses, item ace chooses explicit build-up for project advancement. The overabundances are ordered dependent on schedule. It is dissected by the scrum ace. This cycle is iterative to build a venture in programming improvement. Figure 2 shows the few jobs of DAD which is of two sorts, for example, an essential job and supporting jobs. Essential jobs are overseen by scrum-based nimble strategy for building programming projects which incorporate partner i.e., an entertainer of advancement and group captain, item proprietor, colleague, and engineering proprietor. At the point when Agile meets adaptable undertakings, at that point it doesn't give an answer. Subsequently scrum based Agile strategy gives an answer. The supporting jobs are trained professional, autonomous analyzer, area master, specialized master, and integrator.

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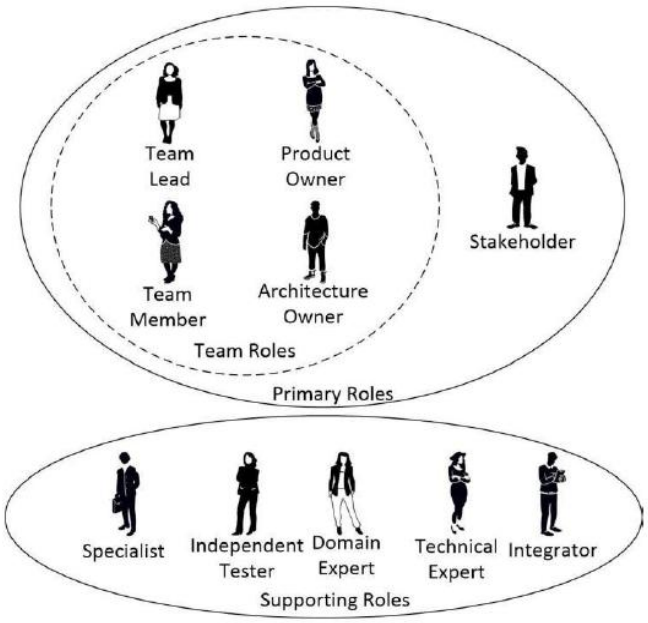

Figure 2 The roles of Disciplined Agile Delivery

Figure 3 shows the cross breed model of Agile techniques, for example, Scrum, Extreme Programming (XP), Kanban, Agile Modeling, Cynefin, protected, Agile Data, devops, Lean Software Development, Unified Process, Traditional Software Development, etc.

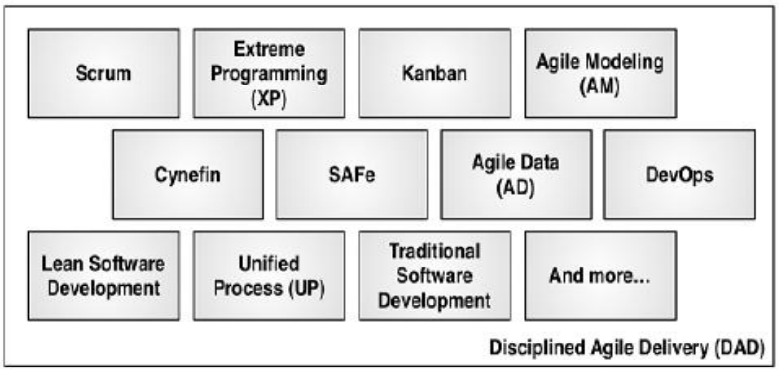

Figure3. DAD is a hybrid model

Enormous scope projects are created by utilizing a scrum-based light-footed strategy which gives an outcome. Yet, it isn't suggested for a future based programming project. So in our proposed work, the aftereffects of scrum based dexterous technique are contrasted and a neural network, which incorporate four versatile strategies for Agile whose outcomes are prepared and tried in neural organizations. Neural organizations are prescient and endorsed calculations are utilized for breaking down scrum based Agile strategy. The outcomes are tried to anticipate the results with negligible blunders.

The Artificial Neural Network (ANN) doesn't contain calculations for the information, handling, and yield age [8]. It goes about as a human mind neural organization structure, which is utilized to settle on a brief choice. In this way, utilizing ANN, the information base is trained.ANN is

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assessed utilizing an example yield from test information. ANN networks settle on choices dependent on preparing information, with no utilization of the numerical model. Most nerves can be joined into either a solitary layer or at least one layers on a specific organization. Initial, a layer of neurons is thought of A layer of Neurons: first layer neural organization with S neurons and R input edges are appeared in Figure 4.

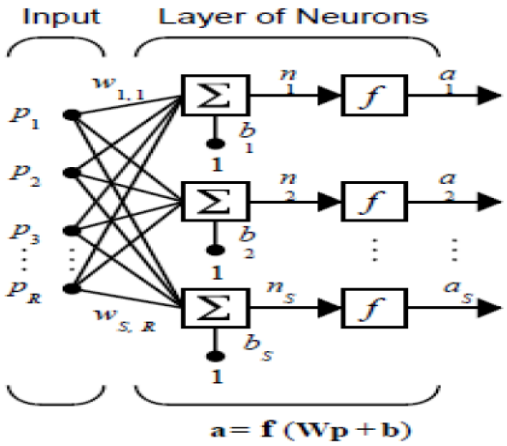

Figure 4 multiple input neurons and multiple output neurons

Where S indicates number of layers engaged with ANN and R signifies number of information vectors utilized in ANN.

Each perceptron association is called as an edge which is doled out the info vector p from the principal layer network called perceptron, and we utilize the numerical documentation that is joined to the neurons of every one of the layers. The weighted of Matrix W, output of its layer and adaptable information sources are utilized to make n (i). The S element gathers the absolute information vector n. At long last, the yields of neurons structure a direct vector. A layer isn't restricted to have the quantity of its information sources same as the quantity of yield neurons. A solitary layer of neurons can be shaped by utilizing distinctive exchange capacities by placing two organizations in equal. Both the two organizations contain similar data sources, and each organization could create any of the yields.

A neural organization layer is separated into three areas, the primary segment has an info layer part, and the yield section is comprised of, the neurons. Join two organizations with various progress capacities utilizing a solitary layer can be made with neurons. Both are the very sources of info that have two organizations, and distribute which can make each arrange. The components of the information are passed into the organization through the weighted network W.

$$W = \begin{vmatrix} w1,1 & w1,2 \dots & w1,R \\ w2,1 & w2,2 \dots & w2,R \\ ws,1 & ws,2 \dots & ws,R \end{vmatrix} \qquad (1)$$

The line records in the lattice W addresses the terminal neuron of weight Ws, R, and the segment files address the contribution of weight ws, R. Consequently from the column lists in w1, 2, the strength of the sign from the contribution of the second component to the main neuron is w1, 2.

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The S neuron R input one-layer network is appeared in Figure 5.

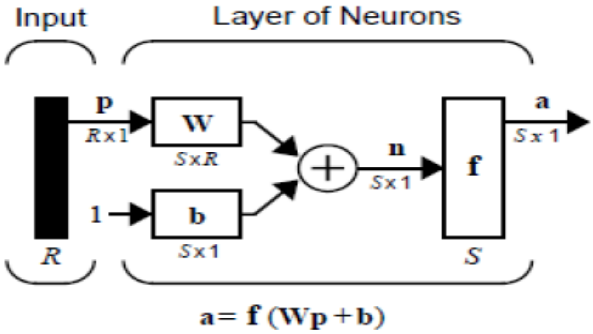

Figure 5 Multiple neurons with input.

Where R is the info vector's components and S is the quantity of neurons in a layer. In the over one-layer network p is an information vector with length R, weighted grid W and an and b are S length vectors, and W is a sxr lattice

Inputs and Layers: The weighted frameworks associated with inputs are called input loads, and the weighted networks one coming about because of the yield layer are called layer loads. To distinguish the source and objective, addendums are utilized for various loads and components of the organization. To depict this, the various organizations with one layer are redrawn in abridged. Structure as demonstrated in Figure 6.

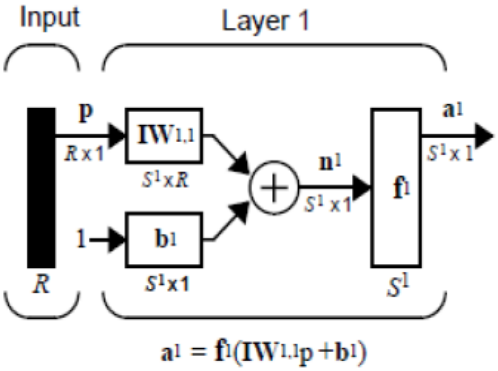

Figure 6 Single layer multiple neurons

Where R is the information vector's components and S is the quantity of neurons in the layer.

From the one-layer with various organizations appeared over, the weighted network to the info vector p is marked as an Input Weighted lattice (IW1,1) with a source 1 and objective 1. Additionally the components of layer one, for example, its complete information, predisposition and yield are having an addendum 1 to show that they have a place with the principal layer. Segment 2shown related work of scrum based scaling utilizing Agile techniques. Segment 3 presents the techniques and philosophy of scrum based scaling utilizing Agile strategies. At last, Section 4 shows results and conversations of scaling utilizing Agile techniques lastly we close our work on scrum based scaling utilizing Agile strategies.

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2. RELATED WORK

Coordinated is an efficient conventional task the board, which comprises of a few methodologies, for example, incessant investigation and transformation, based designing practices [9]. Spry technique has a few preferences. It gives full fulfillment to clients, done by project the executives. It gives away to association among measure devices, engineer, analyzer, and client [10]. Engineer and analyzer should reach one another, they should associate with their venture through their own specialized apparatuses or gathering advising. The product improvement association plans to finish programming projects as expected. Up close and personal correspondence is vital in deft advancement measure. Client and designer should address each day and investigate their issues day by day. Programming item should be adaptable and uphold changing conditions.

There are a few setbacks in the deft techniques: it is difficult to assess when an enormous scope programming is created. It doesn't offer significance to the need for plan and advancement documentation [11]. The customer's agent follows an away from of their will and official conclusion in programming improvements. Just senior chiefs in the gathering have the full option to settle on the most fundamental and significant choices on creating programming. In the unreasonable assumptions times, the act of Agile technique is probably going to fizzle. Dexterous techniques is for the most part accepted that to be set as a training, cycles and apparatuses are the principle attributes of a product improvement. For actualizing or fusing of another element in existing programming projects, engineer's have to go through a particular day or a particular hour much of the time. A Scrum procedure is critical to build up the venture which works with Agile method. Scaled Agile Framework (safe) [12], Large Scale Scrum (less) [13]. Restrained Agile Delivery (DAD) [14], and Risk Driven Scaled Framework (RDSF). To be expounded as a table 1 of substance

Table 1: Scrum based scaling using Agile methods are characterized by its sample resources

Factor	DAD	Less	Safe	RDSF
Well defined	Yes		Yes	
Simple	Yes	Yes	Yes	
Books	Yes	Yes	Yes	Yes
Web portal			Yes	
Results			Yes	
Measurable		Yes	Yes	Yes
Consultants			Yes	
Training and certified			Yes	
Popularity			Yes	
Tools	Yes	Yes	Yes	Yes
Fortune 500			Yes	
International		Yes	Yes	
Lean-kanban	Yes	Yes	Yes	Yes
Government			Yes	

Disciplined Agile Delivery (DAD): It is useful in filling the hole by stretching out the scrum creation lifecycle to manage the whole appropriation lifecycle, with the strategies to deal with the game from the other Agile techniques, including Lean and Kanban [7].

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Therefore, DAD is a half and half framework. It is broadens the scrum lifecycle joining numerous procedures from a few strategies, for example, Agile Modeling (AM), Unified Process (UP),Extreme Programming (XP), Lean, Kanban, Agile Data (AD) And different methods. Also, Ambler (2012) shows that the attention on DAD is to manage the errand life cycle from the moment that the program (commencement stage), the development of the delivering answer for creation (progress stage).

Figure 7 The six DAD lifecycles

Figure 7 shows the lifecycles of DAD which comprises of six models, for example, Agile, Continuous conveyance, exploratory, lean, constant conveyance of lean, and program. In the event that any new sort of programming can be discovered, at that point the six kinds of lifecycles followed.

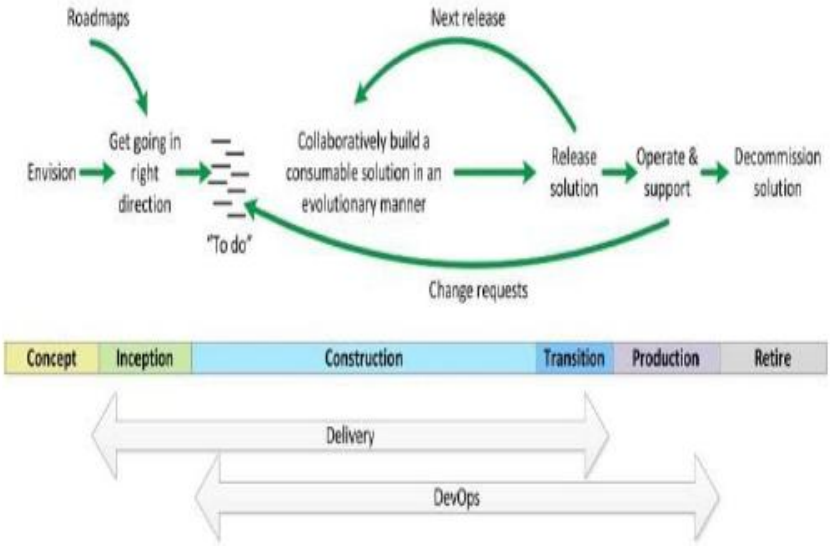

Figure 8 DAD high-level view lifecycle

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Figure 8 shows the significant degree of DAD lifecycle which comprises of 6 stages, for example, concept, inception, construction, transition, production and retire. Six stages is isolated into two phases likes conveyance stages and devOps stages.

3. METHODS OF SCRUM BASED SCALING USING AGILE METHODS

Scrum bunches empower self-administration between gatherings, make adaptable programming and give adaptability to meet developing business prerequisites. It gives customary client input standard time stamp, self-coordinated groups, and working programming. Scrum based scaling utilizing Agile cycle has conventions, which require negligible comprehension of the standards and components of light-footed constructions. Long haul arrangement in explicit cycles is hard to change new advancements. Valuable cooperation with designers at all levels is expected to determine the issue. The Agile strategy is utilized to work on the task to give an item dependent on undertaking necessities, thinking about an arrangement to get input on the venture. Figure 9 shows design of Scrum based scaling utilizing Agile technique with the neural organization. It is utilized to figure out which models is to be followed relying upon the survey got from engineers.

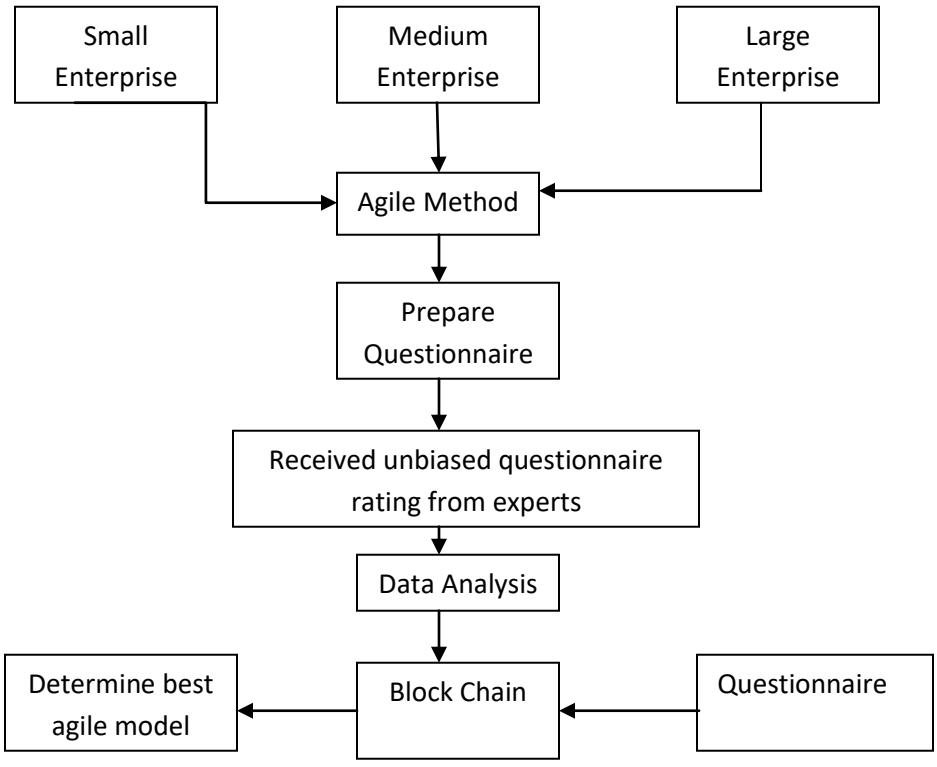

Figure 9 Architecture of Scrum based scaling using Agile method with Block Chain

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The Agile framework contains the accompanying standards: Meeting client prerequisites in satisfying programming needs. Client necessities will be executed in the venture even at the last phase of the task. Programming sometimes gets inputs from the end client. During the improvement of the task, engineers and finance managers should cooperate. Programming created by experienced developers has furnished people with the help to actualize this arrangement. The correspondences group should share their data. Advancement progress is assessed through working programming. Lithe engineering assists with creating practical development in backers, clients, and designers. Great plan and mechanical expertise builds deftness. Self-putting together groups structure plans, prerequisites and constructions. Straightforwardness is decrease of work however not finished work. Group execution is continually looked into to build execution. Scrum is a system for participation in a group that supplements complex items. The scrum arrangement is not difficult to execute, yet its capacity is difficult to dominate groups. Scrum advances cooperation based item the executives. Scrum is a turning component to lessen obligations and accomplish a characterized objective. Scrum is a piece of an Agile framework that empowers a functioning framework to provoke item advancement. Scrum is gotten from game rugby screw which requires the arrangement of the predefined jobs of players. Scrum strategy begins with known sources and improves item advancement and offers valuable changes in short stretches. Numerous products item the executives instruments are Agile dynamic strategies in item improvement.

Testing errands are associated with meeting the danger the executives and upkeep items the board prerequisites of the dynamic parts in the organization. Along these lines the investigation of Agile strategies and task the board cycle is done in the product item advancement climate circulated to more modest and bigger organizations.

The significant goal of scaling factors: This paper is that Agile strategy didn't uphold the versatility. So it scrum based light-footed advancement has thought of four sorts, for example, Scaled Agile Framework (safe), Large Scale Scrum (less) Disciplined Agile Delivery (DAD), and Risk Driven Scaled Framework (RDSF) . Numerous organizations manage the two sorts of undertakings like little and enormous. We have tried these activities utilizing Agile practices. The Agile test is finished by colleagues in association. There are numerous issues that can be brought about by the scaling. On the off chance that this sort of issue comes from the extending test cases programs. At the point when the enormous scaled ventures rehearses is simple, this working between the spry groups. Some time issues makes by the light-footed time work when various groups utilizing various techniques interface follows distinctive gathering of groups. Expanded light-footed practices come from other association. Nimble contains the main issues in planning and preparing the colleague and head, the head have their concern to appoint job of their post and in contribution duties to, the group head and colleague. They have a few assumptions on their post. We need to utilize dexterous strategies for our exploration areas like DAD, less, safe, and RDSF. They have one of these two accepts specific structure and particular practices. We have proposed specific

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practices as introduced here. The product advancement lifecycle depends on two distinct practices, for example, cascade techniques and lithe practices.

Dexterous scaling systems: The product improvement lifecycle has been changed to the light-footed methodology. It is received from scrum based lithe strategy utilizing for explicit practices. It had not gotten a critical direction for bigger undertakings based association. It gives explicit practices. The main thought is the group level practices, for example, planning, front end, project on boarding and business case draws near. Lithe strategies give explicit practices to group level, for example, planning, front end, business case approach, and task on boarding. Lithe with scrum rehearses are utilized in the business. They have two sorts: Scrum coalition and scrum points of interest. Scrum coalition has three jobs, for example, item proprietor, scrum expert and cross practical group. In every one of these group has four antiques like run excess, item build-up, run day by day scrum and item increase. Scrum particulars have five sorts of capacities for each group.

This segment covers a short foundation on scaling based nimble methods. It is completed alongside the fundamental strategies. We can types the ventures into three classes, for example, little endeavor, medium undertaking, and huge venture. All scaling sorts of ventures are inspected in Agile techniques; to utilize any sort of scrum based scaling utilizing coordinated strategy is utilized first. We have just taken a portion of the boundaries, for example, objective of an undertaking, cost, HR and task types. Undertaking director shapes a poll for another venture dependent on dexterous boundaries, and they put some scaling answers for planning survey. We get the outcomes that have given the contribution of the neural organization and the outcomes all together, and we choose which innovations to use in any sort of ventures scales.

4. RESULTS AND DISCUSSION

Scrum based scaling using Agile methods consider four types of scaling using development processes such as Scaled Agile Framework (safe), Large Scale Scrum (less), Disciplined Agile Delivery (DAD), and RDSF . Many companies deal with both types of projects like small and large. We have tested these projects using Scrum based scaling using Agile practices. We have prepared a questionnaire based on size of the projects which is shown in Figure 10.

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Questions	Large Project				Medium Project				Small Project			
	SAFe	LeSS	DAD	RDSF	SAFe	LESS	DAD	RDSF	SAFe	LESS	DAD	RDSF
Is the agile easy to understand?	4	5	4	4	4	4	5	3	3	5	5	4
Does agile framework help achieve organization mission, vision and objective?	4	4	4	3	4	4	4	3		3	4	3
Does the management support agile framework adoption?	4	5	5	3	4	5	5	5	3	3	4	5
Is the management involved in all phases of software development?	5	4	3	4	5	3	4	4	4	4	3	3
Does the agile framework help view project status at all stages?	4	3	3	5	4	4	4	3	3	4	4	5
Does the agile framework implement lean priciples?	5	5	5	4	5	4	3	4	5	4	3	3
Does the agile framework have suitalbe help mateirals?	4	5	3	3	4	3	3	5	3	3	4	4
Does agile framework improve productivity?	5	3	3	5	4	4		4	3	4	3	3
Does agile framework help in prioratizing different team stories?	4	5	5	3	4	5	3	3	3	3	4	3
Does the agile framework help deliver quality?	5	4	3	4	5	3	4	4	3	4	3	3
Does the agiel framework speeds up market delivery?	5	5	3	5	3	3	4	3	3	3	4	4
Does the agile framework improve employee enagagement?	5	4	5	4	4	4	5	4	5	4	3	5
Does agile support different team working on same project?	5	4	3	5	4	4	3	3	3	3	4	4
Does agile support multi-site development?	5	4	3	5	3	5	3	5	4	3	4	3
Is agile suitable for small project development?	3	4	4	5	3	3	4	4	2	3	5	5
Is agile suitable for large project development?	4	4	4	4	5	3	4	5	3	4	4	4
Does agile framework help in individual contribution?	3	2	3	3	3	3	5	4	2	3	3	3
Does agile framework support iterative development?	4	4	4	5	4	4	5	4	5	4	4	4
Does agile framework provide contineous feedback?	4	5	3	4	4	3	3	3	3	3	4	3
Does agile framework reduce development cost?	5	4	5	5	5	5	2	3	3	3	3	3
Does agile framework help evaluate optimal solution?	5	4	4	4	5	4	4	5	3	3	4	4
Does agile feamework set milestone development?	5	5	3	3	3	2	4	4	4	4	3	2
Does agile framework manage work flow efficiently?	5	5	5	4	5	5	3	5	3	4	4	3
Does agile framework help make quick decisions?	4	4	3	5	4	4	5	3	4	4	5	5
Does agile framwork set visibility for stakeholder?	5	5	5	3	3	5	4	5	4	3	4	5
Does agile framework change work culture?	4	4	4	4	3	4	3	3	3	4	3	5
Does agile framework remove timely roadblocks?	4	4	3	5	4	2	4	4	4	3	3	5
Does agile framework provide uniform work distribution among teams?	5	5	3	4	4	4	3	5	3	4	4	5
Does agile framework reduce rework?	5	2	4	3	5	4	4	4	4	3	4	5
Does agile framework help team members to be creative?	5	5	3	4	4	3	3	4	3	4	4	4
Does agile improve overall communication among team members?	5	4	4	5	3	4	5	4	4	4	3	2
Does agile framework concentrate on technical excellence?	5	4	4	5	4	3	3	5	4	4	3	5
Does agile framework provide good foundation for software development?	4	5	4	5	3	5	5	4	5	5	5	5
Does agile framework ensure repeated stories deletion?	4	5	4	5	4	4	3	3	4	4	3	5
Does agile framework facilitate stake holders to get feedback?	5	5	4	4	4	3	4	5	4	5	5	4
Does agile framework enable synchronization among teams?	3	4	4	3	3	3	3	5	3	3	4	3
Does agile framework trace stories?	3	4	4	4	4	4	4	5	5	4	3	4
Does agile identify risk in project?	5	5	5	4	5	4	5	4	4	4	3	4
Does agile framework identify inter dependencies among stories?	5	4	4	4	4	5	4	5	5	4	4	5
Does retrospective meetings help team learn from mistakes?	3	5	5	4	3	4	5	4	4	4	5	4
Does agile framework provide project view to stakeholders?	4	5	3	4	5	5	5	5	4	3	4	4
Does agiel framework minimize roles in work?	4	4	4	4	4	3	4	4	3	3	4	5
Does agile framework showcase role and objectives of individuals?	5	5	4	3	4	5	3	3	3	5	3	5
Does agile framework identfy technology and product framework initially for software development?	3	4	5	5	5	4	4	5	4	3	4	5
Does agile frame work allow technology customization?	4	4	4	4	3	3	3	4	3	4	3	4
Does agile address customer and stakeholders query?	5	5	5	5	4	5	5	4	4	5	5	3
Does agile improve customer satisfactin?	5	4	4	3	5	4	4	3	4	4	4	3
Does agile help in faster product delivery?	5	5	5	5	4	4	3	5	3	5	5	4
Does agile mitigate risks in project?	5	5	3	3	3	3	3	5	4	4	5	3

Figure 10 Questions are set up to find out which kind of criterion is appropriate scrum based scaling using agile methods

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Figure 10 shows to discover which sort of rule is proper in scrum based scaling utilizing spry strategies. Boundaries are given as inquiries from, which we discover, which are the awesome these four-scaling programming. The incentive for legitimization 0 is the most reduced rating and 5 is the most elevated rating. We offer survey to programming engineer and get criticism which is gathered. In view of answers that are given. The inquiries posed in this poll, we close whether the product is not difficult to utilize, its work has been focused on, its framework is uncommon, it gives the ideal arrangement, it's worth is extremely high on the lookout, and the size of the time it takes. We set up the outline of the outcomes from this poll; to give input the Neural Network with Bayesian relapse utilizing back engendering for huge, medium and little tasks which results appeared in figure 11, figure 12, figure 13 and figure 14. Back-propagation condition (2), it is quick lattice based arrangement is recognized, which contain weighted grid W and b number of predispositions by applying equivalent distance in Bayesian regression.

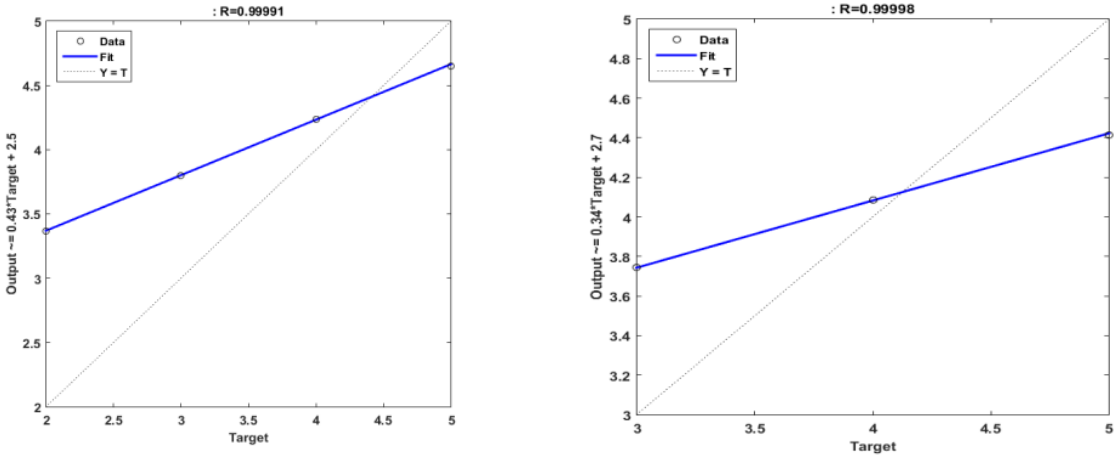
$$J(W,b) = \left[\frac{1}{m}\sum_{i=1}^{m} J(W,b;x^{(i)},y^{(i)})\right] + \frac{\lambda}{2}\sum_{l=1}^{n_l-1}\sum_{i=1}^{s_l}\sum_{j=1}^{s_{l+1}}\left(W_{ji}^{(l)}\right)^2$$
$$= \left[\frac{1}{m}\sum_{i=1}^{m}\left(\frac{1}{2}\left\|h_{W,b}(x^{(i)}) - y^{(i)}\right\|^2\right)\right] + \frac{\lambda}{2}\sum_{l=1}^{n_l-1}\sum_{i=1}^{s_l}\sum_{j=1}^{s_{l+1}}\left(W_{ji}^{(l)}\right)^2 \quad (2)$$

Neural Network Learning in equation (3)

$$J = \begin{bmatrix} \frac{\partial F(x_1,w)}{\partial w_1} & \cdots & \frac{\partial F(x_1,w)}{\partial w_W} \\ \vdots & \ddots & \vdots \\ \frac{\partial F(x_N,w)}{\partial w_1} & \cdots & \frac{\partial F(x_N,w)}{\partial w_W} \end{bmatrix}. \quad (3)$$

Understanding the data in equation (4)

$$E(W) = \frac{1}{2}\sum_{p}\sum_{k}\left(Y_k^{(p)} - \mathbf{F}_k\left(X^{(p)};W\right)\right)^2 + \frac{\lambda_1}{2}\sum_{i,j}W_{ij}^2 + \frac{\lambda_2}{2}\sum_{i,j}W_{ij}^2(W_{ij}-1)^2(W_{ij}+1)^2 \quad (4)$$



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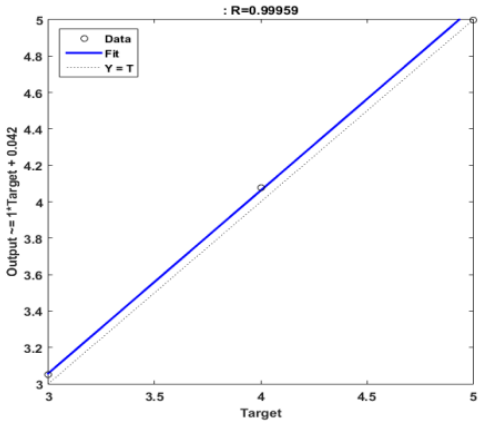

Figure 11: (a) SAFe- Large Vs Small projects best fit curve of Bayesian regularization using back-propagation model. (b) LeSS - medium Vs small projects best fit curve of Bayesian regularization using back-propagation model. (c) DAD agile frame work for large Vs medium project best fit curve with Levenberg-Marquardt neural network

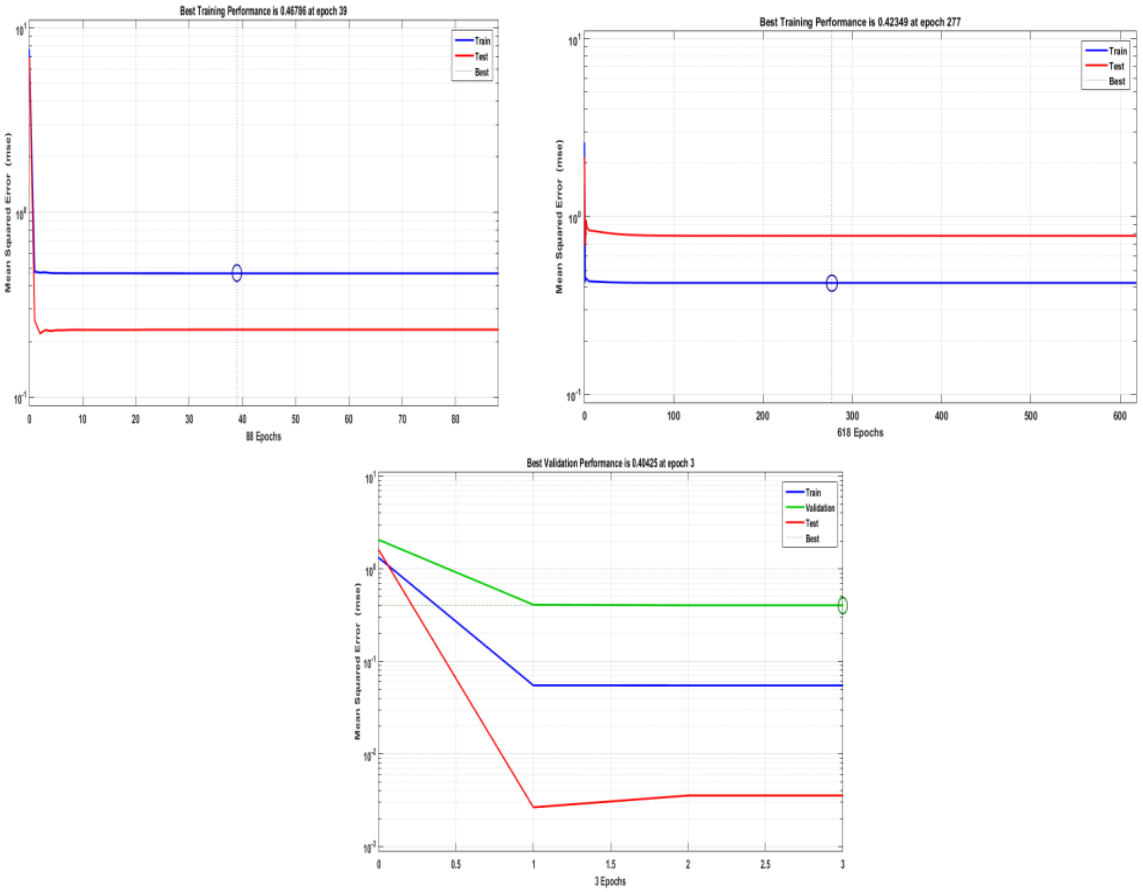

Figure 12: (a) Training performance of Bayesian regularization using back-propagation algorithm for safe (large Vs small projects). (b) Training performance of Bayesian regularization using back-propagation algorithm for less (medium Vs small projects). (c) Training performance of BFGS quasi-Newton back propagation algorithm for DAD (Large Vs medium projects)

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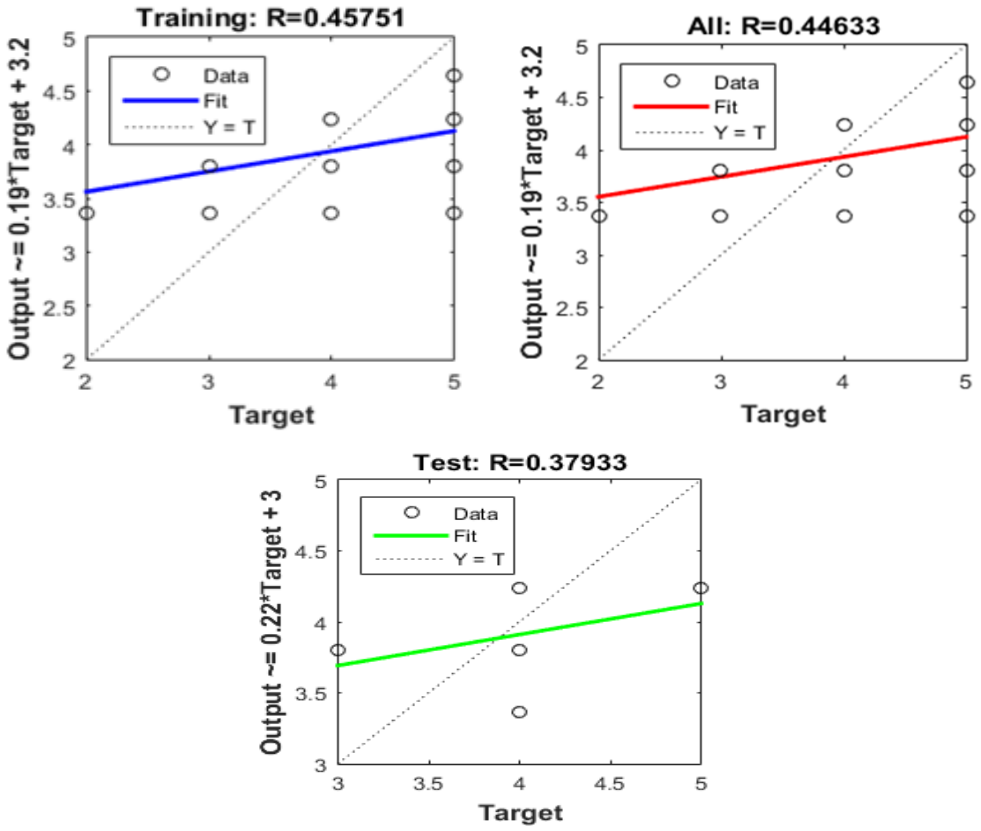
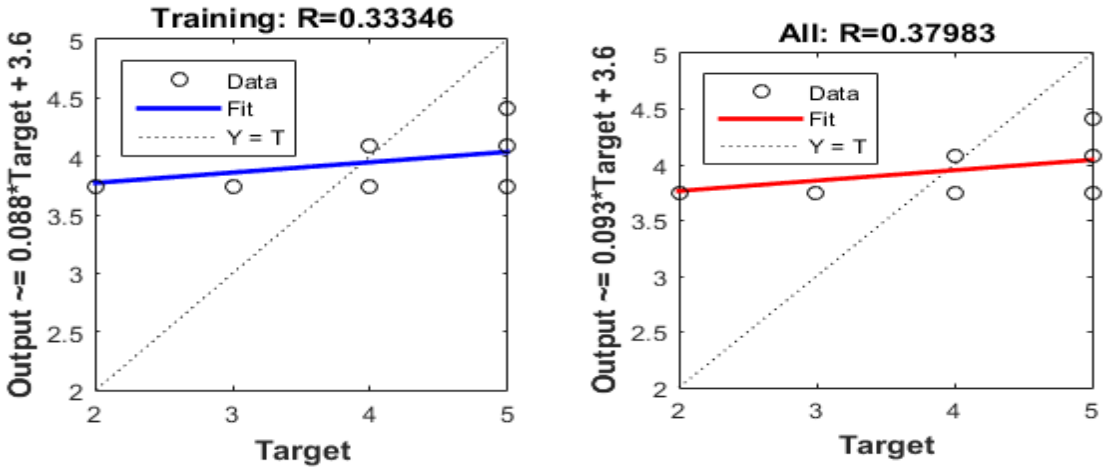


Figure 13: Bayesian regularization using back-propagation network performance analysis for safe method (Large Vs Small) projects.



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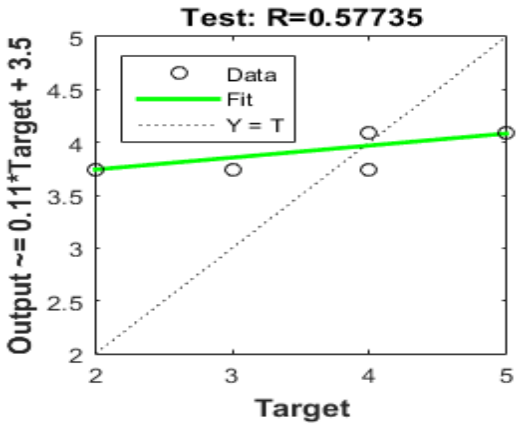

Figure 14: Bayesian regularization using back-propagation network performance analysis for less method (medium Vs small projects)

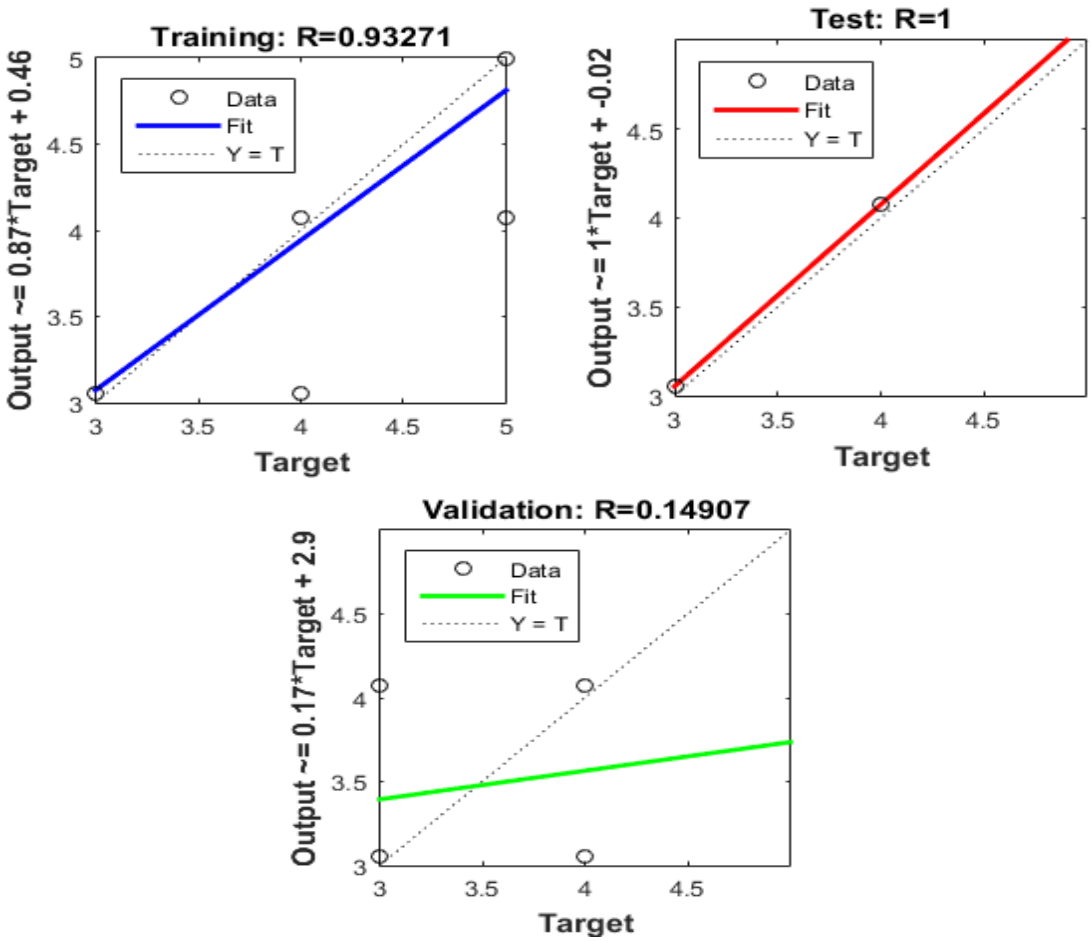

Figure 15: Levenberg-Marquardt neural network performance analysis for DAD method (Large Vs medium projects)

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5. CONCLUSION

Programming advancement association has significant jobs for choosing best practices in programming project. The association gives their necessities in different sizes and different sorts. Yet, Software administrator doesn't matter regular principles to all. The Software supervisor takes choices dependent on expense and time. The exhibition of deft techniques is more reasonable these days. Water fall model as customary undertaking the board rehearses has a few weaknesses. To beat similar dexterous strategies are presented. Every Software advancement model has its own strategy, tasks and work process. Each Agile strategy has its sorts, size and advancement gathering of aptitude dependent on the ventures took care of by its own capacity. The deft calculation's presentation is surveyed to choose dependent on reactions to choose among SAFe, LeSS, DAD and RDSF dependent on poll. It is tried in Artificial neural organizations with Bayesian relapse utilizing back engendering. The diverse size of the ventures like enormous and medium, huge and little, medium and little tasks are thought of and execution is assessed. The neural organization alongside to check the outcomes the presentation audit model and various relapse model to confirm the outcomes.

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