

PRD Report

Please follow the PRD template closely and address all the things mentioned there in a way suggested there.

Make sure to list all students who actively worked on this Report (on Title page).

Things to keep in mind:

- Round numbers in your calculations. For example, your estimate of \$10,374,645.63 should be presented as \$10.4 million
- Don't be shy to include (relevant) pictures, tables and graphs
- Make your report easy and exciting to read. This is your "product" and I and TA team are the "customers"!

PRD-SkillUP

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Vision

For people with interrupted educational services due to low internet facilities or lack of quality and engaging, interactive educational methods like students who have their school shutdown due to covid, poor people who can't afford strong internet services and costly educational platform, young professionals looking to bolster their skills; the mobile application named "SKILLUP: an innovative e-learning" can help people to use curated educational content for free with support of High Bandwidth videos etc. to stream at Text level as per auto bandwidth detection. The app unlike other expensive e-learning platforms targets the existing unaddressed needs of customers and current problems like lack of app stream at low bandwidth; lack of gamification etc; thus, app with such strong differentiating features like allowing users to personalize content and choose various skills to view curated content as well as give users a community to engage, contribute content and increase engagement through features like auto content switch as per BW; gamifications, quizzes etc.

Motivation

Unmet Needs:

Students: Students are facing issues with internet connection with high bandwidth. They do not have a platform to learn new technologies with reasonable plans. Almost all the existing platforms are expensive which will be difficult for the students to afford. Students, especially the ones in the rural areas, experience issues in accessing educational content due to unstable internet connection or price. Poor students who live in the countryside cannot enjoy fast internet. They have to rely on books which is an issue because of situations like Covid-19 which made access to borrow books a challenge as most of the libraries are closed. Also, technical courses cannot be learnt through books.

Lay-off employees/Unemployed: People who are laid off during the pandemic or any other unfortunate situations need a platform that is cheap with a lot of skills to learn and that also provides certifications. They want to build their skills before getting interviewed by another company as they are the most challenging ones to get hired as they get laid off. Most of them are unemployed because they could not meet the professional requirements. So, they are one of the objects we need to serve. Our app is to provide these people with suitable learning opportunities and further improve their own abilities to achieve the purpose of improving social status, that is, to find a job. As people that fall into these categories are low on income, they are facing

challenges in affording the existing expensive ones. Also, they are looking for platforms where they can communicate with the fellow learners to improve the network.

Educational platform-seekers with low internet bandwidth: Irrespective of their age and profession, few people are always open to learning and building more skills. They might not have any prior professional experience or might not be registered in school. This category may or may not be employed. They are looking for a platform where they can be guided according to their interests as they are clueless. Also, they might be unemployed or freshers who cannot afford spending on expensive education or a high bandwidth internet connection as they might come from a poor background.

Customer Segments

Our target customers are people in India who live in slums without full network coverage. As of the end of 2020, nearly 50% of the Indian population in India, that is, almost 676 million people cannot enjoy the mobile Internet^[1, 2]. Among these people are job seekers, students, and office workers who want to learn skills by themselves and have a higher persistent pursuit of professional skills.

- (1) **Educational platform-seekers with low internet:** As of the end of 2020, the unemployment rate in India has reached 5.4%, which means that among the 676 million people, nearly 36.5 million people are likely to have insufficient capabilities due to low-quality Internet or lack of interconnection³. They were unemployed because they could not meet the professional requirements. So, they are one of the objects we need to serve. Our app is to provide these people with suitable learning opportunities and further improve their own abilities to achieve the purpose of improving social status, that is, to find a job.
- (2) **Students:** This group is also our key service target. Data on the number of students studying abroad affected by the epidemic in 2020 will be affected. So as of the end of 2019, the number of Indians studying abroad reached 553,000⁴. This is a very large and very important audience. They are not satisfied with the education level of their country and want to study abroad. Therefore, it is very important to improve personal professional skills. For example, 50% of international students choose to study in North America⁴, which means they choose a difficult path. As we all know, the United States is a big Internet country and wants to gain a foothold in the United States. There are so many people, which means a lot of competitive pressure. Therefore, Indian students going abroad should strengthen their own skills training and pay attention to personal ability training. There are also some students who have been forced to accept the fact that the school is closed due to COVID-19. As of May, last year, 320 million Indian students have suffered such pain⁵. The total number is so huge, let alone Poor students who live in the countryside cannot enjoy fast internet. They need apps like ours for tutoring, to find ways to improve their abilities, not to stop learning because they don't go to class, and not to waste time.
- (3) **Office workers with high pursuits or those facing unemployment:** as of the end of 2017, India had nearly 15 million employees directly or indirectly engaged in the IT industry⁶. Of these people, nearly 80% are not satisfied Current position, or face layoffs. We can see that just because of the impact of the epidemic, the number of layoffs in India in April 2020 reached 120 million⁷. So, they have only one way to improve their professional skills, such

as programming skills, programming skills, and interpersonal skills. Our app can provide them with a platform for technical exchanges with experts, as well as learning various IT professional skills. This can help them to advance in the workplace.

Please see **Appendix 1** for a summary of all results obtained from surveying current and past Scholar or job seeker.

Existing Solutions:

There are many existing solutions in the market that our target customers rely on. Few of them are:

1. Udacity - Udacity offers a learning platform for the tech-forward enterprise. Their programs address the skills gaps that enterprises are facing in core and emerging technologies, like Data Science, AI/ML, Cloud, Cybersecurity, and more but a single paid Udacity course costs 399\$ per month which is very expensive.
2. Coursera- a free learning online website that offers MOOCs courses from well-known universities and these courses have pre-recorded video lectures that can be watched according to the convenience but the average cost per course ranges between 80\$-200\$.
3. Udemy- an online platform that helps to create courses for business, design, marketing, etc. The courses provided can be viewed on all devices connected to the internet (but requires high bandwidth).
4. LinkedIn Learning- a website that offers video courses that are taught by experts in that particular field. LinkedIn premium charges \$30 per month for learning courses and it needs active connection with high bandwidth.

Although these platforms are running in the market, none of these learning platforms help or connect people with features like learning gamification with different segments of customers, does not have a Community forum with respect to experts and free contributors etc. Also, these websites do not provide courses that can reach people who are facing low bandwidth connections (like rural areas in India etc.).

Differentiation:

- Currently, there are various products available in the market such as Udacity, Udemy, Coursera, LinkedIn Learning, etc.
- Udacity offers courses and nanodegrees at \$399 per month which is quite expensive for a common man to afford whereas SkillUp on the other hand is providing courses for free with a community forum.
- Udemy charges up to \$100 but requires a high bandwidth internet connection. Also, Udemy offers certificates without checking if the person actually completed the course. This loophole can be misused by lots of people and is unfair towards the people who are putting in hours of effort to improve their skills. SkillUp conducts various tests and then provides certification which boosts them to learn even more and requires low bandwidth connection.
- Coursera is a platform that charges on monthly subscriptions to generate revenue and requires a high bandwidth of internet connection. However, Coursera only gives people limited time to finish their course and they are charged again to do the same course with that time limit intact. SkillUp does not have that time limit hanging over anyone's head, people can easily schedule their own plans and time limits without having to finish it in a hurry.

- SkillUp is also aimed at providing video streaming at low bandwidth so that people living in areas with low internet connection can also access SkillUp and educate themselves.
- This app unlike others targets the existing unaddressed needs of customers and current problems like lack of app stream at low bandwidth; lack of gamification etc;
- Thus, apps with such strong differentiating features like allowing users to personalize content and choose various skills to view curated content as well as give users a community to engage, contribute content and increase engagement through features like auto content switch as per BW; gamifications, quizzes etc.

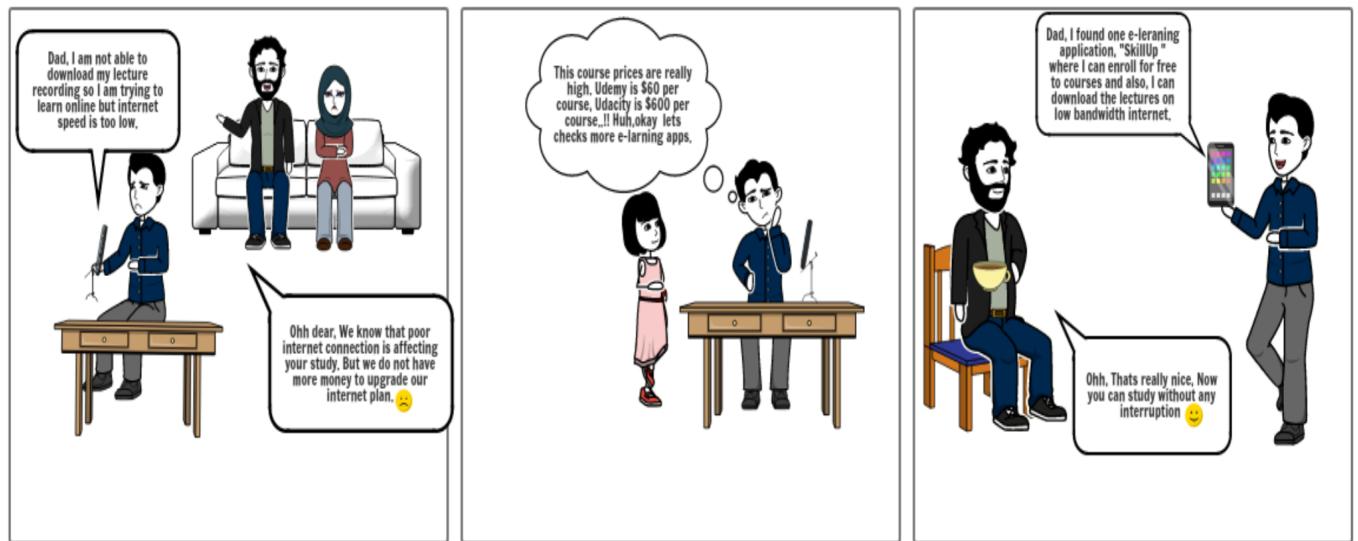
Why Now?

In the current epidemic, everyone's lives or studies will be affected. For those who are poorer or those who live in poor areas, they must spend more time at home. However, the low-bandwidth network does not support them to study and find a job well, so our Skillup will make up for this part of their lives. Give them a good opportunity to improve their personal level, just like professional skills and expand their knowledge reserves.

Use Cases with Storyboard

Use case #1: (The one with the Low internet)

"Arghh! Low internet, How will I study online ?"

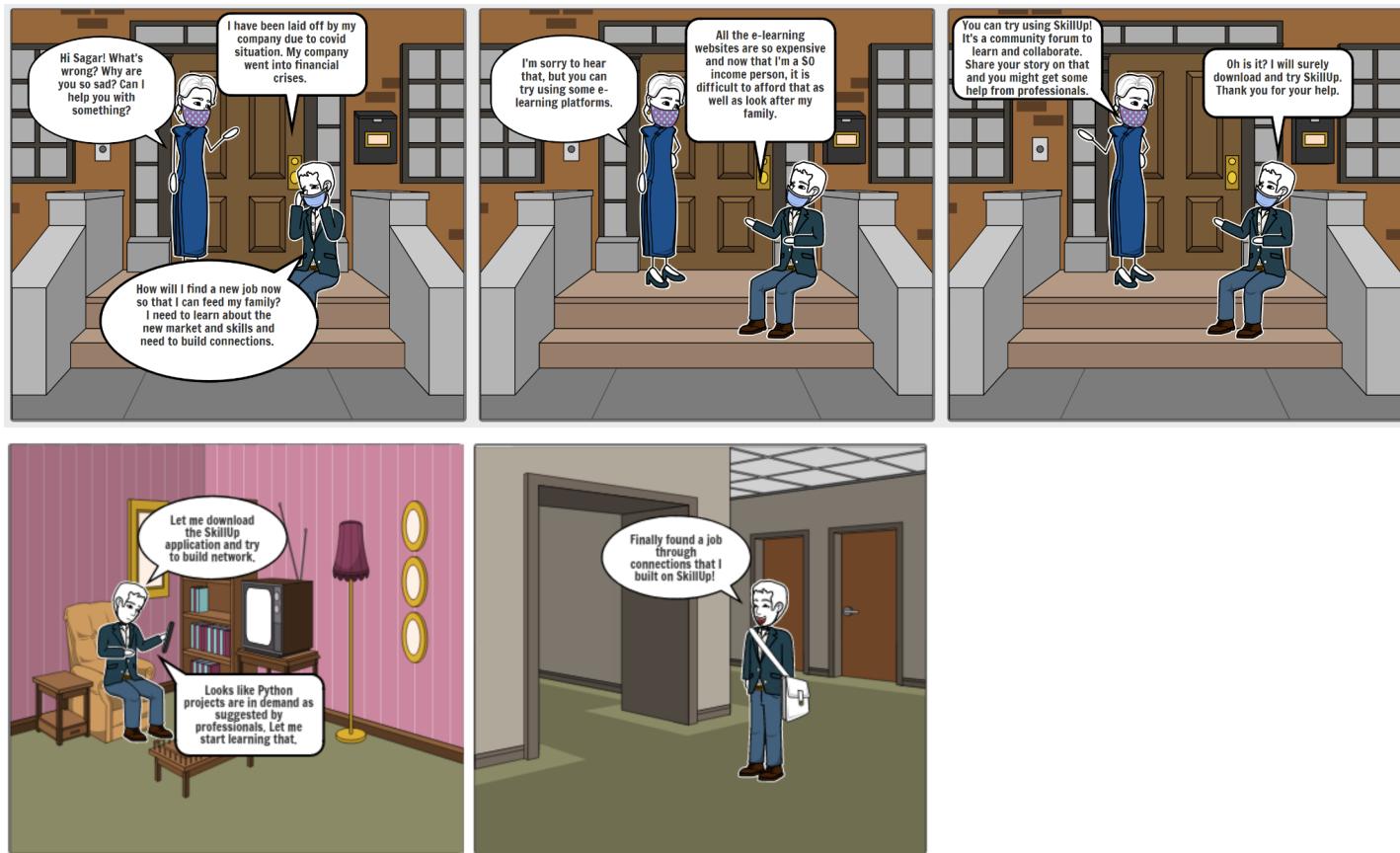


Rohit (age 20) stays in Nepal, a region not developed completely, but still developing with Technology. He stays with his family and has one school located far away from his home. He has a bread to mouth existence income via his dad's farm's income but somehow manages to go to school via long transportation. He uses an old android phone that supports the 3G network. After Covid struck, Half of the village has been affected and all facilities are shut down by the government to make the pandemic in control. With no school premise, Rohit uses limited Internet facilities available by his service provider to browse Free educational platforms available. Searching through Available options, He finds udemy 60\$ per course, udacity udacity 400\$ monthly plan unaffordable. He realizes the Skill Up on the playstore, downloads it. Rohit browses his skills needed for improving his dad's farming business. He clicks on those courses, clicks on run it in offline mode, and gets all PDFs saved. Without paying for Higher Internet, nor

with high bandwidth support Rohit can easily study and has his learning back on scale with free option

Use case #2: (The one with Community needs)

"I am laid off! How will I improve and connect to a community forum ?"



Sagar (age 34) is a hardworking employee and works at an IT firm as a .net developer in Mumbai. He earns to a limit which suffices his families hand to mouth existence and for monthly expenses. One fine day, he realizes the company he was working, is hit by financial crises due to covid. Client decides to run the project internally cancelling all contracts with Sagar's company. Sagar gets laid off and now happens to be with 0\$ monthly income. Sagar downloads the SkillUP app. He connects to the community and shares his story. He gets a good response from the community and then finds that the industry in spite of the pandemic has a great demand in projects needing Python programming skills. He browses through the skills category, finds Skills in Python and starts learning and building connections in the community, and a few weeks later finds a new job!

Use case #3: (The one with Gamification needs)



My school is closed ! I miss learning with games and friends !

Jayshil (age 13) is a student at Mumbai, lives in Dharavi and has not been going to school since covid has resulted in lockdowns and a new distant way of operating world, where he misses how he used to discuss his homeworks and assignments with friends. He loved fun and learning games at school. He is not liking the existing methods of online learning like coursera etc. He comes across SkillUp, picks up skills as per his interests and now starts building up quizzes and competes with other friends in his area and other groups from his own school, learning through advanced features of gamification, quizzes, collaboration with friends etc. He loves the gamification features by SkillUp and uses more and recommends his friends to use to make best of quality learning which is free.

Detailed Design & Features Description

Design Principles

There are two main goals of our product SkillUP. The first is to provide a professional learning platform for children affected by the epidemic to study at home. The second is to provide low-bandwidth download services for some students who cannot afford the cost of high-speed internet. This leads to the following design principles:

Covering a wide range of user groups, not only students, but also for adult workers to design learning programs that adapt to this group of people.

- Customer data security. Due to the existence of a communication platform, personal information is easily exposed, and it is very important to improve personal privacy security.
- Keep in close contact with the teaching resource providers, and be ready for the adjustment of the back-end database.
- To ensure the experience of low-bandwidth users, always pay attention to the dynamics of low-bandwidth download technology and always look for loopholes to make up in time.
- Each client can make his own learning plan according to his own situation. For example, their learning of skills must be systematic. The form of quiz can be customized by yourself, such as time limit and change of difficulty of the title. There is also the use of the forum, you can have your own expert guidance, you can also supervise and study with some students.
- Extensibility, follow-up can be docked with many school platforms to help them promote their courses, in return, they can issue some certificates to students.

Infrastructure and Analytics

We will use Appy Pie for app development. First of all, we have to choose the app name and color scheme. Then select the test device of the app, and create an Appy Pie account. Then proceed to the overall appearance design of the app. After the design is completed, the simulation test is carried out, and new functions are added or deleted based on the test situation. Then proceed to the final test before going live. The final step is to publish the app and promote the app.

Features/information architecture

Applicants:

Feature	Detail	Dependencies	Priority
Explore features that are helpful	<p>The app allows users to browse without logging in. The main interface mainly contains three parts.</p> <p>Part 1: Information about the school to which the teaching resource belongs.</p> <ul style="list-style-type: none"> • Detailed introduction, such as the school's history and subject advantages, etc. • All available and classified teaching resources • All available certificates • History has selected famous students or successful people in this school <p>Part 2: Information about teaching resources</p> <ul style="list-style-type: none"> • Educational institutions affiliated with teaching resources • Systematic teaching resources • Areas where teaching resources can be used • Certificates corresponding to teaching resources <p>Part 3: Information about the forum</p> <ul style="list-style-type: none"> • All available forum information in various fields (subjects or alumni) • Details of expert representatives in each forum • Percentage of students' majors and schools in each forum • The user can only view the information, and cannot do any operations before logging in 	Dependencies are the need to obtain the authorization of each partner school and forum experts and their specific information, as well as timely update according to the latest database.	1

Login	The application only allows registered users to log in, and can register by email, or log in with Facebook or a saved Google account. In addition, when the user successfully registered with his email address, he can log in by entering his email address and password.		1 2 (Face recognition login)
Registration	The registration method is limited to registration by email. The user needs to enter the following information and agree with the conditions: <ul style="list-style-type: none"> • Full name (First name, Last name) • Full name of the mailbox • Password for login 	Dependency is to determine whether the name, email address, and password entered by the user meet the standards. And whether the conditions that the user needs to agree to meet the regulations. And obtain the legal right to collect user information.	1
Forgot your password	The app allows to reset the password after forgetting the password. This process requires the user to provide email verification. Use the password modification web address sent to the mailbox to modify the password.	Dependency is to get the mailbox trust permission	1
Dashboard	After the user successfully logs in, enter our main page, the main page contains the following content: <ul style="list-style-type: none"> • User's personal photo • User's personal name • Search bar (used to search for the skills you want to know) • Skills recommended for users based on personal browsing records • Popular skills list based on background data <p>There are also three buttons, which are to enter three zones:</p> <ul style="list-style-type: none"> • Skills • Community • Quizzes 	Dependency is to obtain the permission of the user's historical browsing records and obtain the trust agreement recommended to the user	1
Personal center management	The personal center contains the following contents:		1

	<ul style="list-style-type: none"> ● Personal Photos ● My name or username ● Personal professional introduction ● Manage the skills I have learned ● Manage the community forums I have participated in ● Review the course quizzes I have taken 		
Course View	This application allows users to browse the skills they want to learn. Our skills are classified from rough classification to precise classification. For example, computer software skills□office software skills□Microsoft office software□Excel skills learning. Each layer has a detailed introduction to this skill, and the final specific skill will have a subtitle of the course, allowing users to have the most detailed understanding of this course.	Dependence is to obtain the dissemination authority of teaching resources	1
Low bandwidth mode file export	This application provides technical support for downloading teaching resources under low bandwidth conditions. When users choose a skill, they can use the low-bandwidth network detected by the application to import <ul style="list-style-type: none"> ● Audio ● Video ● E-books ● Related articles about the skill into the software they are used to for learning.	Dependence is to obtain access to other applications on the phone, as well as network detection protocols	1 2 (In-app playback and browsing)
Quizzes to check learning outcomes	The application supports users to test the skills they have learned. When entering the test of a certain subject, the phone will be locked and a countdown will appear (for each question). When the user completes his own test, in addition to the subjective questions, the objective questions will immediately show scores, and the user can check the wrong questions by himself. These wrong questions will have an accompanying answer analysis, and the system will classify and filter the sample questions or courses suitable for the user according to the user's wrong question type and recommend to the	Dependence is legally obtained professional skills test questions from experts or websites	1

	user. The second is that the user's score will not be made public, only the user has the authority to view it. The application protects user privacy to the utmost extent.		
Visit forum	This application allows users to participate in the forum, but before participating in the forum, you need to carefully read the forum rules and agree to various terms that are conducive to the development of the discussion.	Dependence is to legalize the terms of the forum and make the forum personnel's real-name system	1
Find a learning partner	This application allows users to learn with partners. When users enter a forum, they can view the posts they are interested in at will, and they can comment, like or share the posts. The user can also see the commenter and the comment content below. When a user likes a commenter, he can click on his avatar to view the detailed information of the person, establish contact with him, or ask questions.	Dependence is to obtain user authorization, allow others to view your own information, and receive private messages from strangers.	1
Version preview	This application will regularly provide some users with internal testing opportunities to experience the new version of the function and collect feedback.		2
Personal information update	Users may not complete their own detailed information, such as mobile phone number, associated account number and the like. In this case, the user can still fully experience the application.		2
Logout	Users are only allowed to log out in their personal center. And after logging out, you need to re-enter the mailbox name and password to log in, and you will need to verify the mailbox in a remote place (another electronic device).		1

V-1 aka Minimum Variable Product (MVP)

All of the above features with the priority 1 would be part of the minimum viable product (MVP)

V-next

The features of next version:

- Version preview function, facial recognition unlock-function, in-app audio and video playback function and e-book reading (annotation) function
- We will improve the sample question recommendation function corresponding to the wrong questions of the quiz test, and will use the user clicks to feedback the accuracy.
- We will add a learning plan to develop a total of capabilities, according to the user's daily app usage time, skill browsing records, and learning records of students in the same field, to tailor a systematic learning plan and daily task details for users. Regularly assess the college. The assessment feedback will verify the effectiveness of our plan.
- We will also have more styles of learning materials, not limited to audio, video and e-books. There may also be lectures or face-to-face lectures.
- We will set up automatic control algorithms for the back-end database. For example, learning resources that have not been clicked for a long time will be withdrawn from our platform database. As well as the schools that have been terminated, we will also delete them from our platform.

V-long term

Our long-term plan is to expand the audience. It is not enough just for students and the unemployed who are eager to learn skills. We also want to add new features to provide learning opportunities for special groups of people. For example, for the deaf or blind, we will design software supporting learning products, such as hand-touched learning boards for the blind, and sign language teachers and courses for the deaf

User Walkthroughs: Visual Use Case Walkthroughs

Figure 1 : Rahul recently lost a job due to a pandemic and he is now desperately looking for a new position. As the market is very competitive, he is thinking of learning new technologies so that he will get a job quickly. As he is financially struggling, he is looking for a free but effective solution. After doing some market research, he decided to use Skill Up as it is free, provides a variety of courses to choose from, and also works flawlessly with low internet bandwidth. He downloaded the Skill Up application from the Appstore and opened it. As he is using it for the first time, the app asks for his full name, email address, and password to sign up or he can also use his social media accounts like Facebook or Google to sign up purposes.



Figure 1

Figure 2 : After completing the registration the app now redirects him to the login page where he needs to enter the email address and password he used while signing up. Once the successful login, the app now takes him to the main page where he is seeing the application home page. On the home page, he is seeing courses related to top trending skills required in the IT industry as well as he can search for other courses using the search bar provided on the page. Once he starts taking courses, based on the courses he has enrolled in in the past, the app will also start showing recommended courses. Rahul checks other features like skills, community forum, or quizzes.

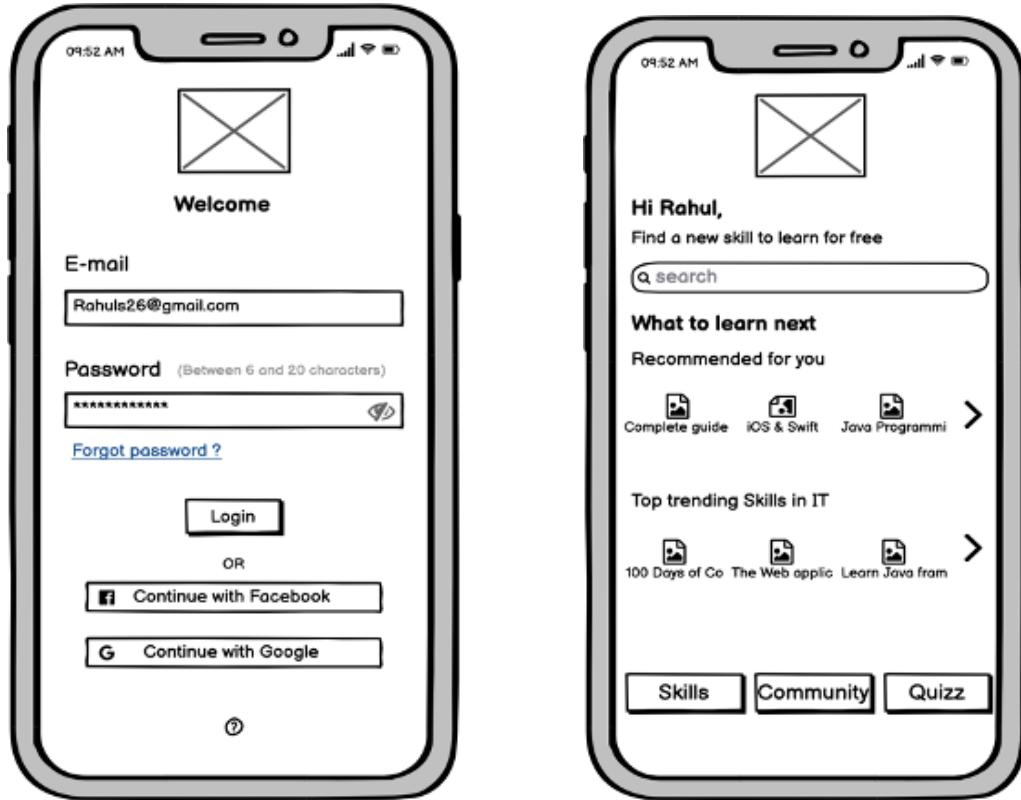
**Figure 2**

Figure 3 : Rahul is trying to login into the Skill Up application after a couple of days but he is not able to recall the password he set for the account. So he clicks on the “forgot password?” link on the login page. It takes him to the Forgot password page where he enters his email address and hits the send link button. Soon he receives an email from the Skill Up team with a unique link that redirects him to then create a new password page when he clicks on it. On this page, he enters a new password for the login twice and hits the Submit button. Now he successfully logged in to the application using his email address and new password.

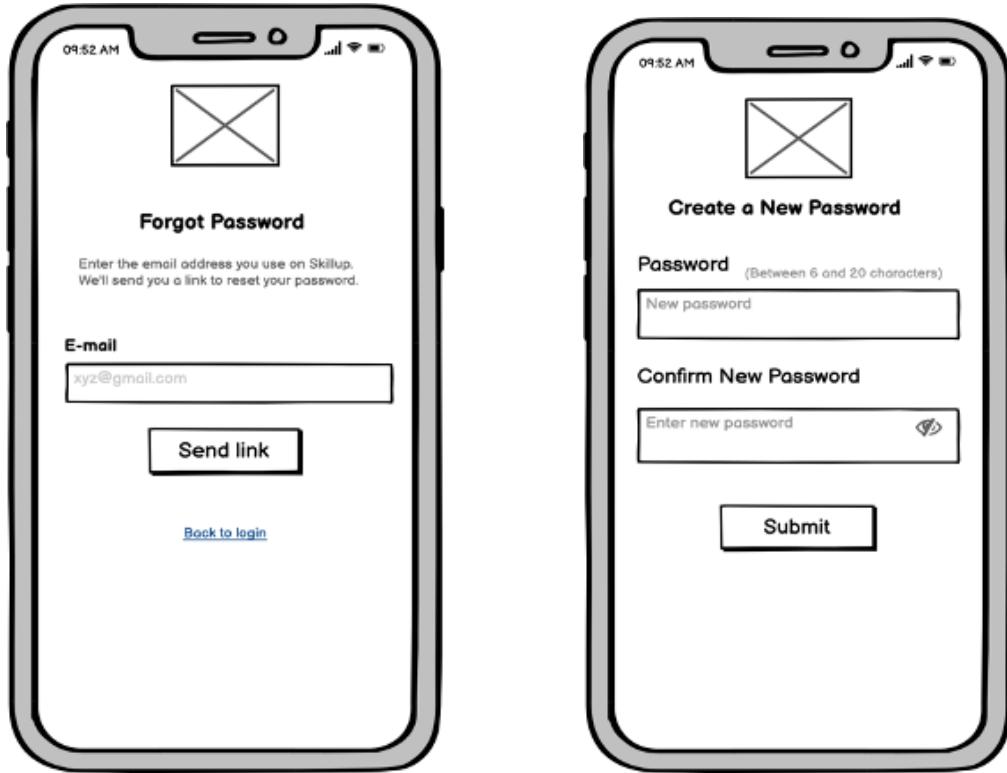


Figure 3

Figure 4: Rahul successfully logged in to his account, and he wants to edit his details and explore software features. He clicked on his avatar and then entered his information interface. He edited his name, profile and introduction. Secondly, he edited the skills he had already mastered, and checked the communities that he had connected with and the quizzes he had completed.

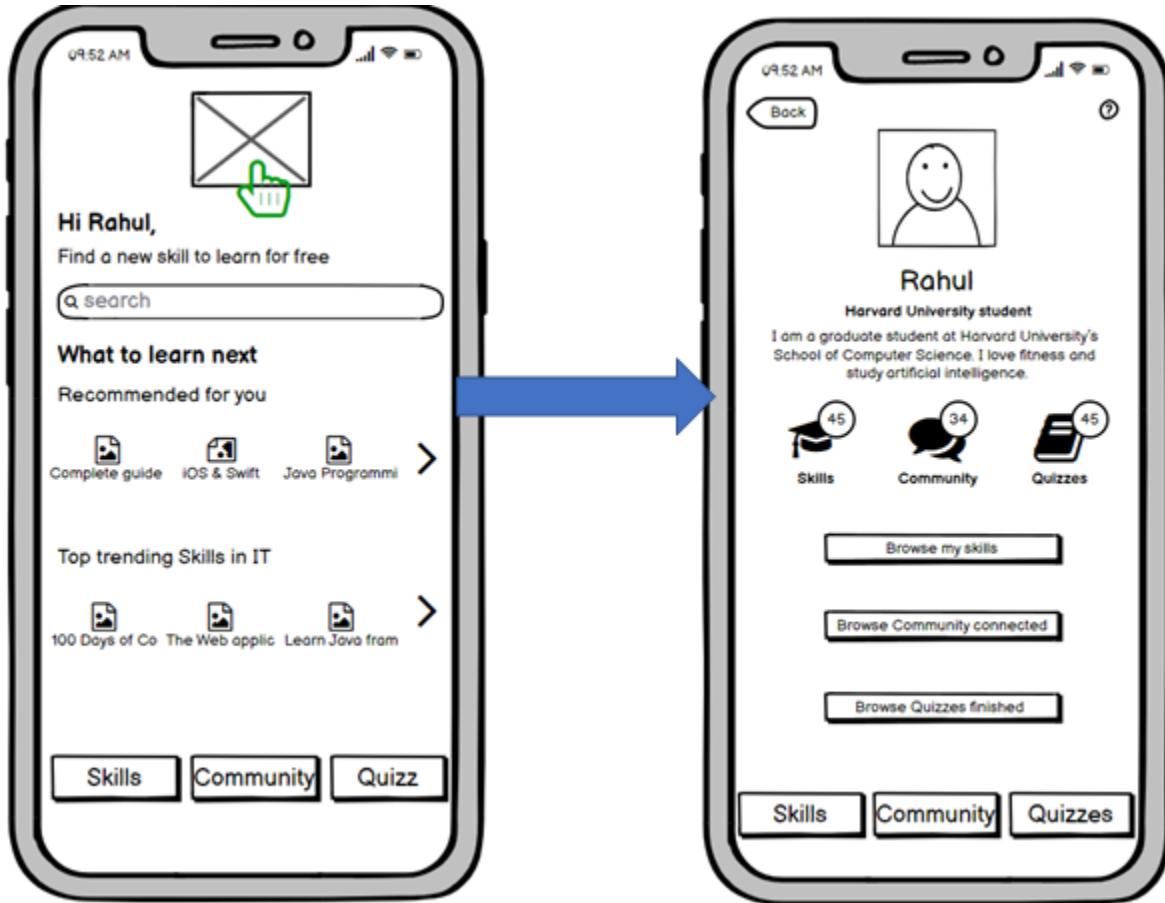


Figure 4

Figure 5: Rahul can't wait to see what kind of skills this app can bring to him. When he clicks the "Skills" button on the homepage, he will be redirected to that page to select the skills to learn. There are two categories, one is the skills that have been learned, and the other is the skills recommended to him based on the selected skill application. Rahul can click any skill icon and enter the skill learning. Rahul clicked the Microsoft Office skill button and he will be redirected to the dedicated page for this skill. This page provides a basic introduction to the techniques and provides a list of courses. He can select a specific skill in this category from the list.

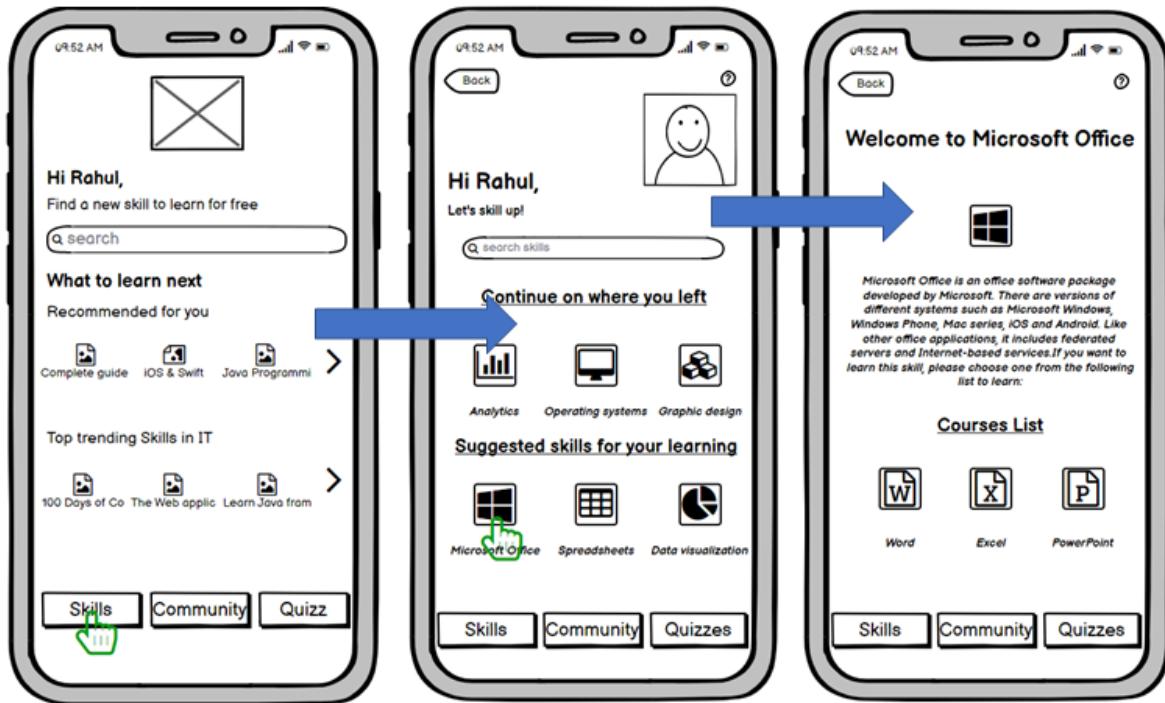


Figure 5

Figure 6: Rahul chose the "word" skill under Microsoft Office, and he was taken to the next page. Rahul used the detected low-bandwidth network to export the skill content to social software (such as WhatsApp). Then Rahul clicks the "Yes" button and he enters the LITE MODE of the app. In this mode, Rahul sees detailed information about this skill (such as audio, books, and articles). Rahul can choose any content they are interested in and export it to their favorite apps for reading.

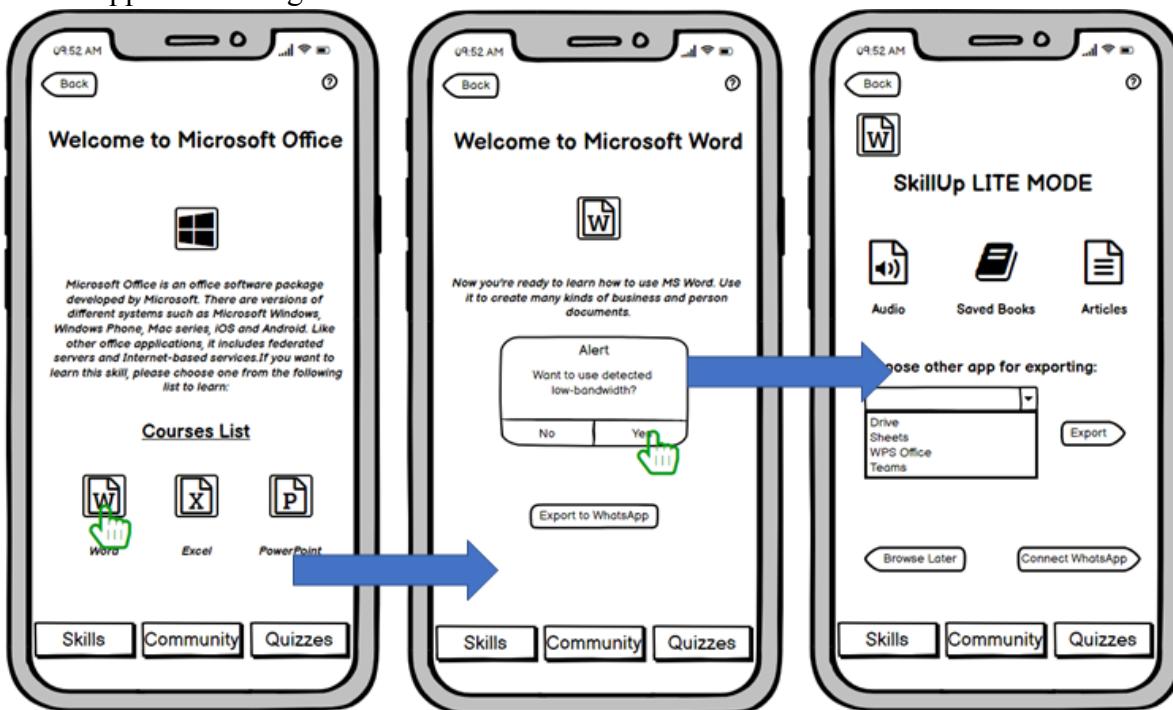


Figure 6

Figure 7: Rahul has successfully updated his profile information and he is ready to SKILL UP! After logging in, he is exploring various features of our app SkillUP. In Figure 5, he is exploring the Quiz section of SkillUp where he can find numerous quizzes pertaining to the domain of his interest. He clicks on the quiz button which takes him to a new page where he can find the quizzes recommended for him, trending quiz topics in the industry and he can also search for a specific topic that he aims to test his skills at. He clicks on **Data Visualization** button which will take him to the next page i.e. Figure 6.

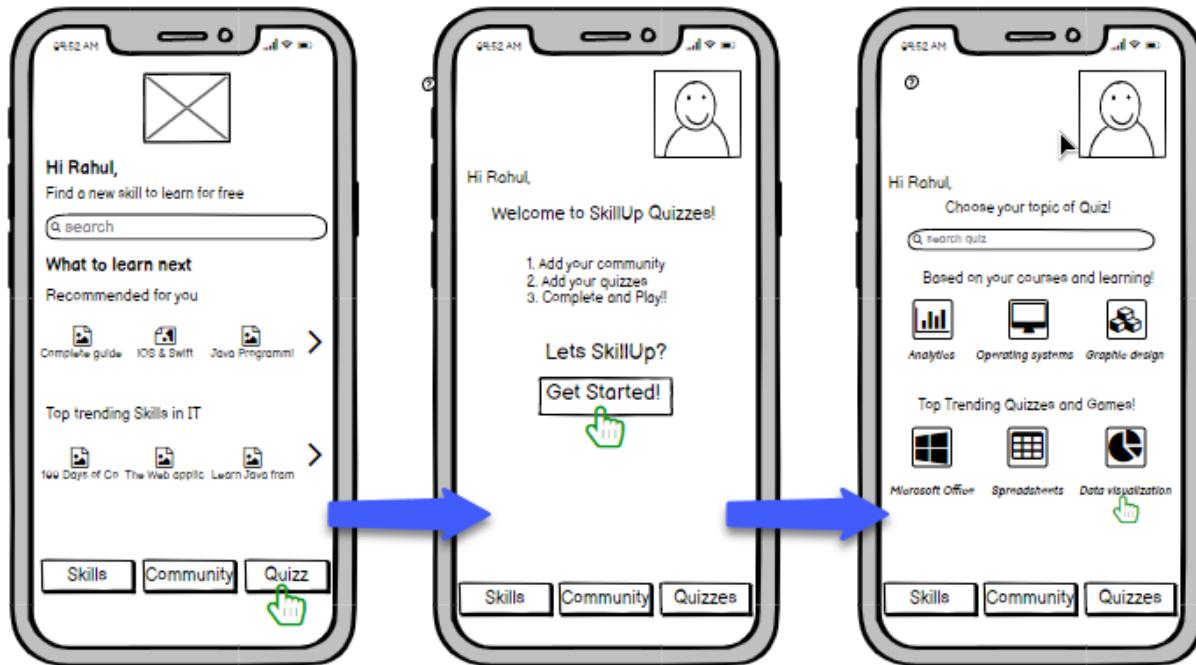


Figure 7

Figure 8: Rahul chooses **Data Visualization** quiz and he is ready to test his skills. He can see the questions and since the questions can be of multiple choice, we use check boxes instead of radio buttons. Once Rahul finishes the quiz, he will be taken to a new page that will display his scorecard and he will be able to understand how much he has learned through SkillUp. The scorecard page also shows recommended quizzes that are frequently taken by other SkillUp users so that Rahul can choose his next course and can test his abilities by giving quizzes.

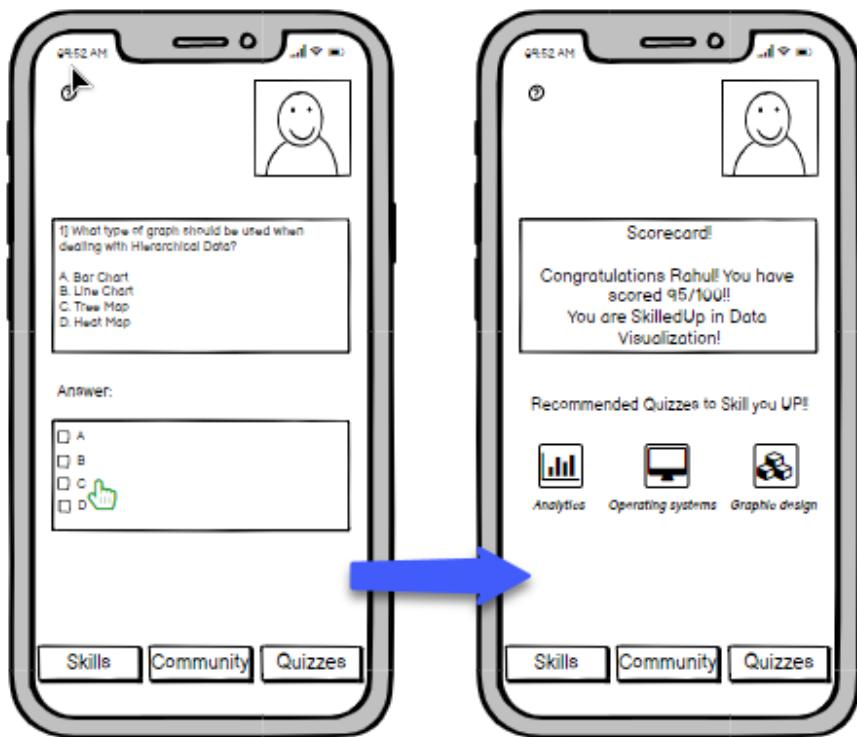


Figure 8

Figure 9: Rahul now wants to communicate with people who are having similar technical interests so that he can build a network and ask them for referrals which could increase his chances of getting hired. He goes to the home page and clicks on the community icon. He then gets redirected to the community form page where he will be welcomed to the community forum. He can read the community guidelines and sign his consent to communicate with people and share his details.

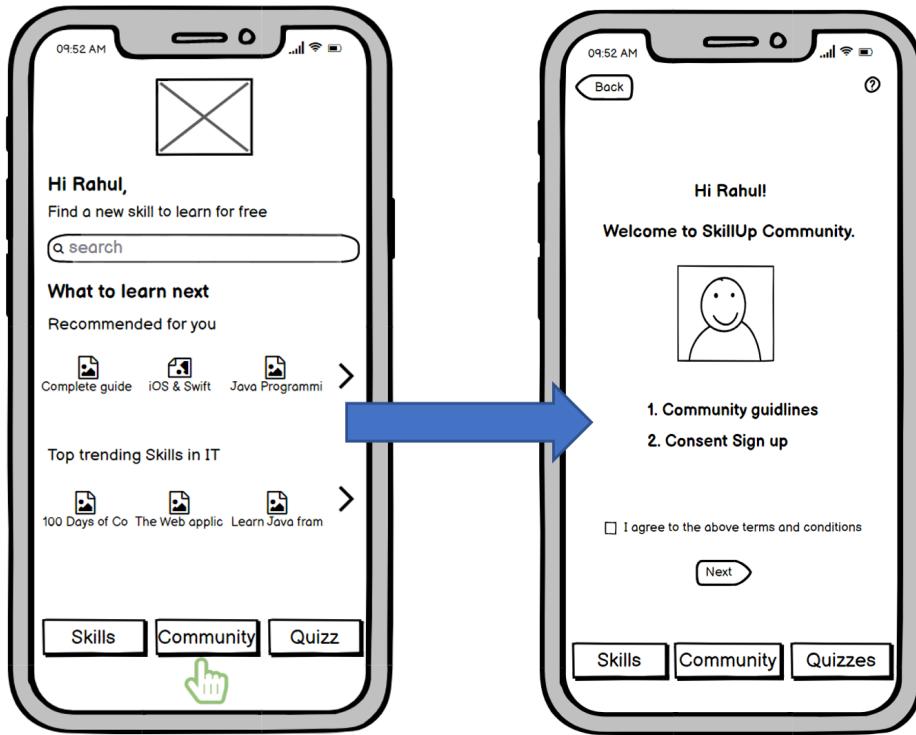
**Figure 9**

Figure 10: After agreeing to the terms and conditions, Rahul then clicks next where he is redirected to a page where he can find a community to network and grow. On this page, he can find recommendations of the communities and top discussions from the communities. When he finds a discussion that interests him, he clicks on that discussion and it will take him to a page where he can view that post. He can also like the post, comment on the post and share the post.

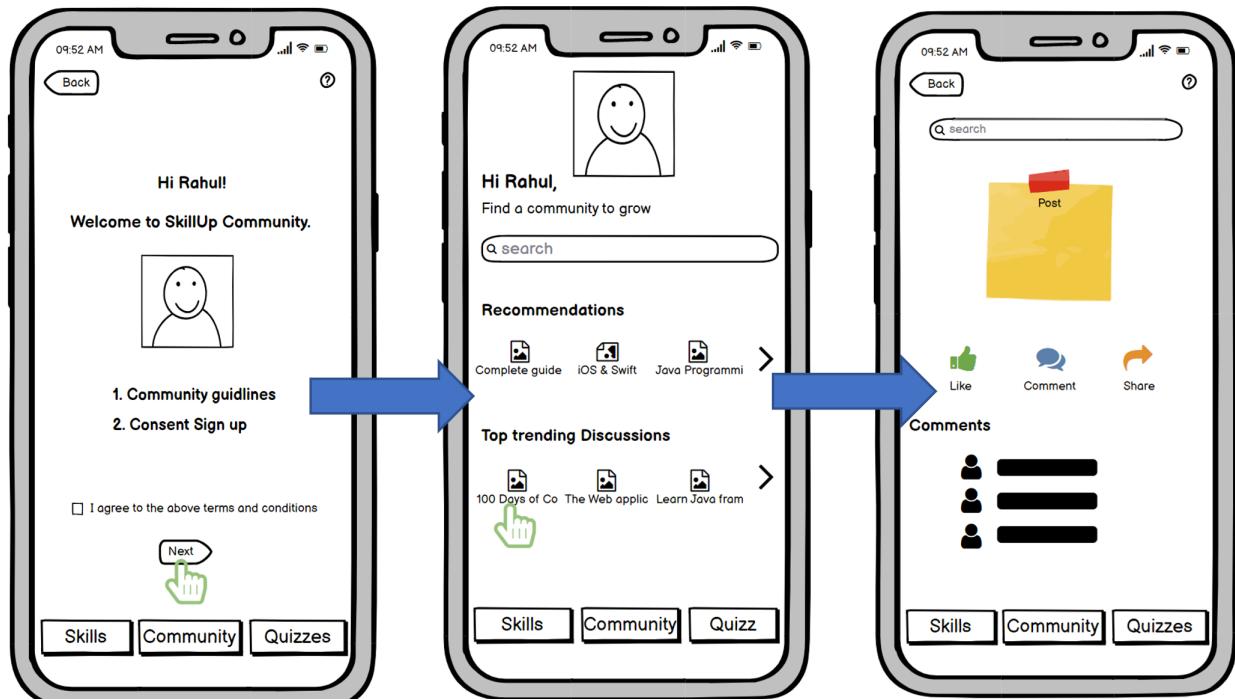
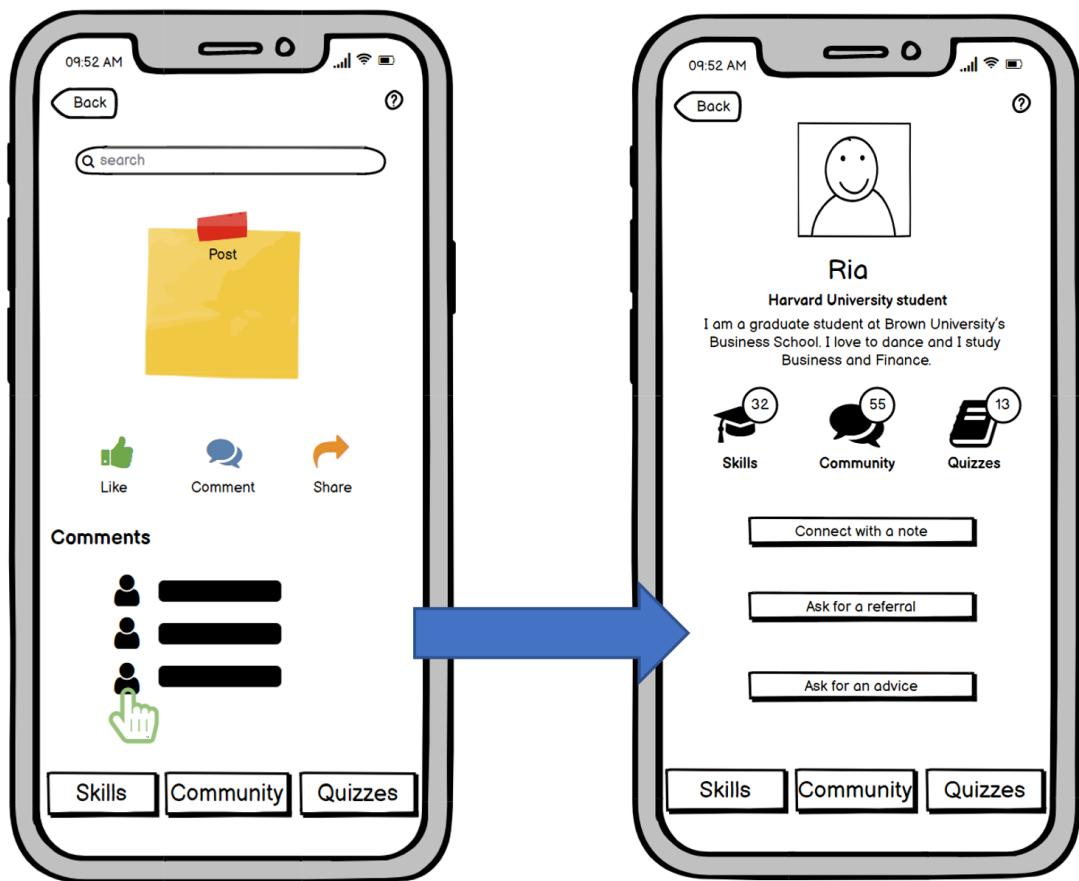


Figure 10

Figure 11: Rahul can now view comments on that post. He can click on any profile from those comments that interest him. It will take him to the profile of that person. On this page, he can view that person's profile, their intro, all the skills that person possesses, the communities in common that they are part of, number of quizzes that they have given etc. He can also try to network with that profile by sending a connection with a note that can interest the profile to accept his request. Rahul can also directly request for a referral as has been laid off and is looking for a job. Rahul can also ask the person for advice by clicking on the advice icon, when a question box appears and he can seek advice on his future career path if that person is working in an industry that he is interested in.

**Figure 11**

Roadmap/Timing

After a month of development, we anticipate having a product ready for alpha launch which includes each screen from our wireframe with all the features required for beta product launch. Moreover, we will begin marketing our application within our close friends and family members to provide us some suggestions and add ons to improve our system so accordingly we will update our use cases and log issues in our system. This will be take more than 1 week and then it will take more than 1 week to fix all the issue.

Once Alpha launch is fixed, we will be ready for the beta launch which will be our product's first step. After all initial testings. At this step we will increase our customer base but we will not involve this product into the market. We will actively work on customer feedback and suggestions related to the product features. Communication will be done with users to understand the feature liked and issues they are facing during the use of the application. This beta testing will take almost a month.

After reviewing all the changes, we will start working on further improvements in our application from the problems our user faced during the use of the application, also we will add all the required and suggested features by users to the product. Once everything is done we will be ready to launch the skill up application into the market.

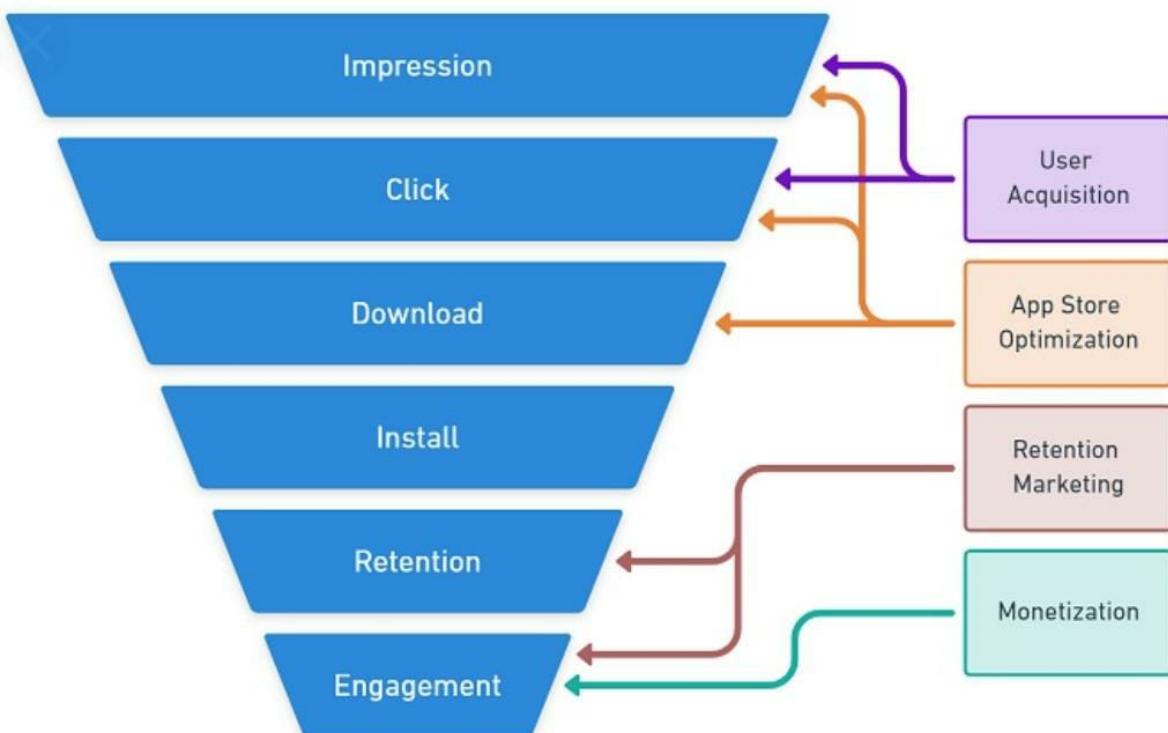
After the launch of a product in the market, we will make sure that we release new features and functionalities on a regular basis. All the newly released features will be tested using A/B testing and will continuously monitor user conversion rate from new downloads and active users on a monthly basis.

Theme	Q1	Q2	Q3	Q4
Account Setup	Goal: Software unlock function improvement Priority: High Effort: Medium	Goal: Google account sign in and linkage Priority: High Effort: Medium	Goal: Account advertising improvement Priority: High Effort: Medium	Goal: Two factor authentication Priority: Medium Effort: Medium
Software Application fluency	Goal: Change -screen off parameter Priority: High Effort: High	Goal: Optimize software as volume increase Priority: High Effort: High	Goal: Premium app feature Priority: Medium Effort: Medium	Goal: Course preview Priority: Medium Effort: low
low bandwidth File download	Goal: Multitype file download low bandwidth Priority: High Effort: Medium	Goal: More coinvent file download Priority: High Effort: Medium	Goal: Third Party integration Priority: Low Effort: High	Goal: Optimizing the download content Priority: Low Effort: High
Forum communication Experience	Goal: Ensure the timeliness of forum exchange Priority: High Effort: Medium	Goal: Better forum experience Priority: Medium Effort: Medium	Goal: Software customization improvement Priority: Low Effort: High	Goal: Course Threads Priority: Low Effort: High
Security	Goal: Viewability of user profile and learning Priority: High Effort: High	Goal: User Experience security Priority: High Effort: High	Goal: Analytics for user information Priority: Low Effort: Medium	Goal: Safeguard protected data Priority: High Effort: Medium

Metrics

The few metrics that we are tracking are as follows:-

1. **Customer Retention Rate**:- Number of customers that are retained after 1 month trial subscription.
2. **Net Promoter Score**:- A survey that helps us understand how the product is performing.
3. **Average Time Users Spend on the app per day, per week & per month**
4. **Average Number of Users signed up for Community Forums**
5. **Revenue Generated per course in a Quarter**
6. **Revenue Generated through advertisements per category in a given quarter**
7. **Customer Satisfaction Rate**



International Plans

Yes we do plan to internationalize the product on later Stages (post Q4) after securing good branding in targeted local markets. However following factors are responsible for determining targeted international market, Post product roadmap Q4 milestone , we should internationalize :

1. Demand for SkillUP :

If demand Exists for SkillUP for targeted International location

2. GDP rate:

GDP rates for SkillUP would be higher or on satisfactory scale as planned

3. Region's Conditions:

Conditions favourable in particular regions (like Nepal, rural parts of US etc.)

4. Rooting or Growing :

Regions with Competitive advantage, Rooting & Growing strong in international regions absence of Competitors in targeted international regions

5. Creeper Strategy:

Smart ways for International Markets using Creeper strategy i.e If competitors are expanding or initiating in a particular region, we can be confident for market research & potential market that region would hold

6. Customer Base Expansion:

To expansion in a market ie. if our customer base of 10% min is ready in a country, we can call it our ready-made market, this would make us think to step on the accelerator for that international region.

Projected Costs

SkillUp is a huge product and has multiple areas like Marketing, Sales, Engineering & Technology, Product Management, Finance and Legal departments. Every department consists of a VP and a few employees along with the VP who are responsible for the duties dedicated to that department.

The Engineering Department consists of 3 sub-departments viz Software Development & Testing, Software & Website Design and Analytics Department. Each department has a Director and each director has his own team dedicatedly working towards product development. The Software Development team consists of a Director and 1 Senior SDE and 3 SDE's out of which 1 of them is an intern and the salary budget for this team annually is \$200000. Likewise the salary budget for the other 2 teams is around that same figure making the total amount \$0.6mn. This sums up the Engineering Department. Similarly, the other department salary budget lies in the range of \$0.4mn to \$0.6mn making the cumulative salary amount for the year around \$3mn for the entire SkillUp team. Additional costs include:

1. Data and Video Lecture Cloud storage:- \$10,000 - \$100,000
2. Office Rental Cost:- \$20,000
3. IT Equipment Purchase and Setup cost:- \$100,000
4. Office Supplies Cost:- \$10,000
5. Recreational supplies:- \$10,000
6. Office Furniture:- \$10,000

This cost is calculated annually and can vary with situations. As the initial quarters pass, the revenue model that is in place to generate revenue through advertising will be enforced and the Marketing team will sync up with Engineering team to set up Advertisements on the website as a source to generate revenue. The initial Advertising models to be enforced are PPC and PPM models, where in PPC stands for Pay per click and PPM stands for Pay per 1000 impressions. These models will be offered to different advertisers based on their needs and a revenue stream will be set in place. The enforcement of this model will require manforce and that is additional cost which will be added to the projected costs for the current year.

Operational Needs

SkillUp requires support and assistance from a development team, support team, design team, marketing team like social media promoter, finance team etc., for the success and promotion of the application. A market research expert's assistance is required to research online to know the customer needs by conducting surveys, interviews etc. SkillUp is a new app, we need to promote the application in order to reach a set of users and for this we need some social media promoters. Assistance from a team of engineers and developers is required to develop the application. Software testers are required to perform end-to-end tests. Ui/ux design teams will work closely with the rest of the teams to ensure seamless designs and enhanced user experience and to improve the look and feel and make it an easy to use application. A finance team is required to provide financial assistance and collect funds for the application. We need a collaboration team to network with universities and career experts to get them and their courses on the app. This team also helps to tie up with K12 integration with a lower version of wikipedia to bridge connections between skills and practical knowledge.

Addressing Caveats / Risks

SkillUP has few key risks that we will account for by making sure that we develop best methods for developing strategies for countering each possibility for concerns for users' data, threat to confidential information etc. As a company for product SkillUP we have planned three sectors which are sufficient to categorize all possible risks for SkillUP & their solution :

- **Privacy concerns:**

SkillUp customers will need to provide data such as First Name, Last name, sex, ethnicity, education details and professional work details for using the customized product features. In such scenarios, SkillUp has a huge responsibility to make sure that we implement strong secured api gateways for data flow from app to servers. Every customer/user needs to have protected personal information. SkillUP will ensure highly private cloud gateways and secured encryption to avoid any third party application using the user data.

- **Legal/patent risks:**

Patent risk is a major issue for initial stages where we want to establish our brand strong with a true originality of idea, use case and solutions to targeted customers. SkillUP as a strong idea with unique set of features happens to be first one in market and will be filing a patent with its unique framework to make sure that competitors don't thrive an edge

- **Piracy concerns:**

Within the walls of offline app access and use, one shall be made to sign user agreement to make sure the content is not being distributed with selling it further to any seller/customer

- **Other Risks & their solutions by SkillUP:**

Demand Risks	Making sure we meet demands of users by increasing bandwidth of users that app system supports
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Operational Risks	Avoiding delayed product launch to avoid operational risks
Customer Experience	Creating customer feedback loop for Product Development team for continuous improvisation
Quality Risks	Maintaining High quality and avoiding factors Poor quality which might be due to poor requirements , non-functional requirement, design, testing & quality controls etc.
Brand Risks	We will overcome Brand risks through countering Customer experience risks & quality risks, thus avoiding poor branding
Reputation Risks	Ensuring we success at features promises to our customers and avoid any false promises to existing & new customers
Price Risks	We will provide free educational services against our competitors in targeted regions

Core Team Members

#1 Akash M Dubey- Product Manager

Will perform all product management tasks such as; will set the product vision and strategy, Plan release, collect and curate new ideas, define new product features, etc. Functional aspect of this role will be a similar role as CEO.

Contact : dubey.ak@northeastern.edu , +16179592041

#2 Yu - Head of Customer Experience (UX)

Yu is the team member responsible for understanding customer actions, crafting and bolstering improvement in the customer experience for all SkillUP customers. He will be handling operations and tasks across Design and User Experience, carrying out user research, building user story maps, creating wireframes, mockups and prototypes, performing usability testing. etc. This role also includes the technical role of crafting a beautiful website and mobile experience as well as handling the logistical issues related to the business.

Contact : Yu.shiq@northeastern.edu, +1 8578004700

#3 Rutuja kale - Head of Product Analytics

Product analytics teams work for SkillUp very quickly and effectively from beginning to end. Primarily these teams are responsible for learning the business context, formulating a plan, gathering complex data and building models, and explaining results with unusual clarity via PowerPoint. Rutuja is the head of our product teams. She is well-grounded as a statistical analyst. Also, she has exceptional presentation skills.

#4 Dhrakshayani Priyanka - Head of Product Marketing

Product marketing team will connect the dots between the product and the market in all directions. This team is responsible for selling SkillUp to potential customers and Priyanka is the head of our marketing teams and she acts as a driving force to getting SkillUp to the market and keeping it there.

Contact : kondipatipurushoth.d@northeastern.edu , +1 8579300284

#5 Divyank Jain - Head of Finance and Legal Matters

Since SkillUp is a free platform for people to educate themselves, we had to find out other ways to generate income to sustain this platform. Divyank, having prior experience in the Digital Marketing and Online Advertising industry leads the financial sector and also oversees a group of lawyers that help us remain compliant and also help us with the legal procedures or partnering with different investors.

Contact: jain.di@northeastern.edu, +1 6178880486

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- ⁸<https://www.weforum.org/agenda/2020/08/internet-users-usage-countries-change-demographics/>
- ⁹<https://en.unesco.org/covid19/educationresponse>
- ¹⁰<https://www.layoffs.tech/tracker>

Appendix

Appendix 1: Applicant Survey Results

(50 Indian respondents including job seekers and students)

Among the 50 people I interviewed, 76% would install one or two learning software on their mobile phones, which shows that there is a potential market for any learning software. Some of them are not satisfied with one software and have to use the second one, which means that one learning software may not be perfect, and they need another to fill in this part of the blank.



Figure 1

As can be seen from the table below, the learning software in the mobile phone is used frequently by users, which means that every user will spend a lot of time on this software. But the only difference is the type of network used. From the figure below, we can see that more than half of the people in India still use 3G networks. This is fatal for a learning software because they have to load a lot of learning materials. It requires a lot of traffic. This is the problem we want to solve, the transmission of learning content under low bandwidth.

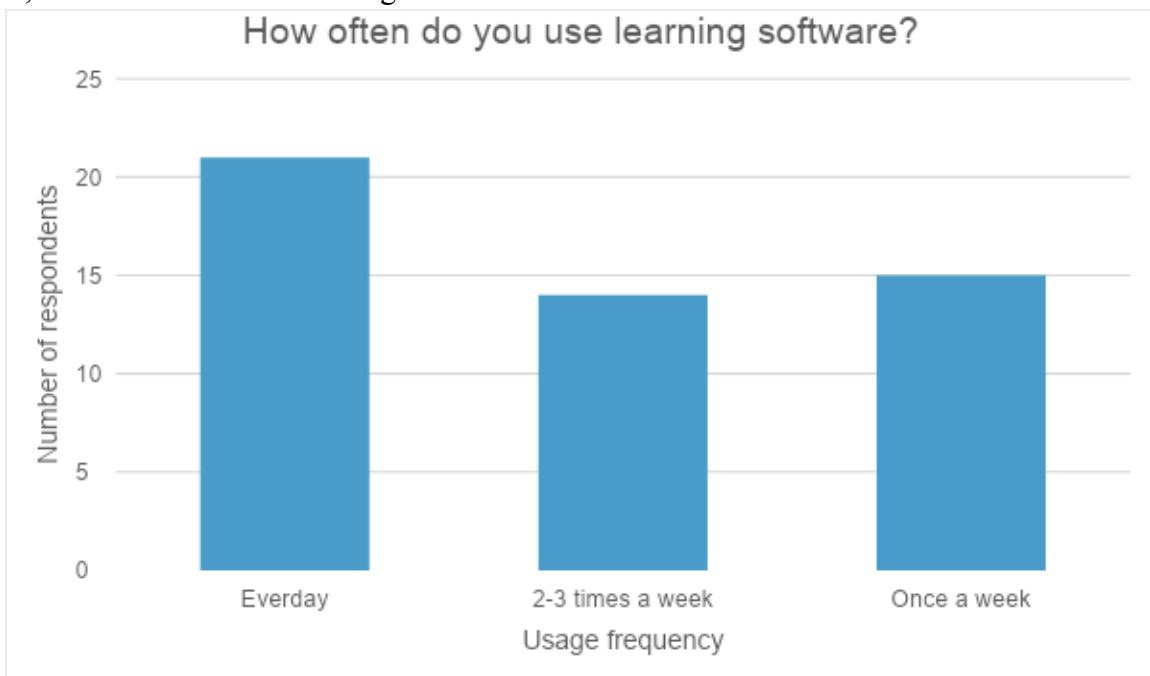


Figure 2

What type of mobile data network is used by your phone?

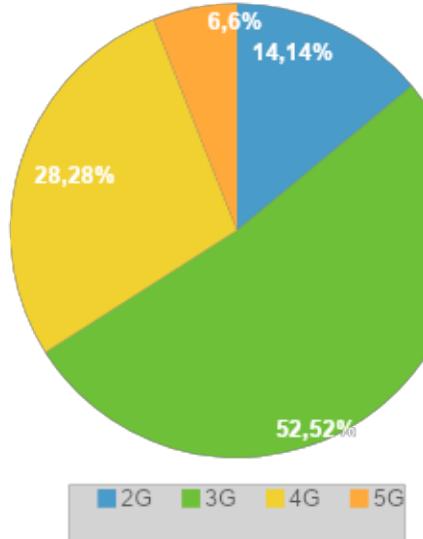


Figure 3

I also selected 20 Indians, including students and job seekers, and asked them what kind of help do you hope a learning software can bring to you?

They gave me this answer:

1. *"My school has become semi-open due to the epidemic. I need a learning software that can urge me to study at home."*
2. *"I want a learning software similar to a learning forum."*
3. *"A software with a lot of free courses will help me a lot."*
4. *"I want a software that can be used without high-speed internet"*
5. *"I need a learning software with professional tutoring"*
6. *"I need a software with more comprehensive courses"*
7. *"Free Software"*
8. *"A software with supervisory functions"*
9. *"A software that supports low bandwidth"*
10. *"I want a learning platform that can provide certificates"*
10. *"I want a platform with rich courses"*
11. *"I need a platform without ads"*
12. *"I want a platform that can provide job-specific skills learning"*

13. "A platform where you can exchange learning experiences"
14. "A free learning website"
15. "A formal professional skills training institution"
16. "A website where you can download a large number of courses"
17. "I like a learning platform with many experts"
18. "A platform that does not require high-speed internet"
19. "A learning platform that can build a discussion group"

Requirements	supervisory function	Free	Forum	No high-speed internet requirements	Professional tutoring	Many courses	certificates
Number of people	2	4	4	3	3	3	1

Chart 4

From the above statistical results, it can be seen that the records are concentrated on these points, with expert guidance, the cost is not high, there is no high broadband requirement and the courses are abundant. These points are just the advantages that our Skillup software can provide them.