Team: MRD Report

Instructions

Key point to keep in mind: MRD is about a need and customers, not about your solution! You will describe it in PRD.

MRD Report. Please follow the MRD template closely and address all the things mentioned there. Make sure to list all students who <u>actively </u>worked on this Report (on Title page).

Things to keep in mind:

- Round numbers in your market calculations. For example, your estimate of $10,374,645.63 should be presented as $10.4 million
- Make sure to list all the references
- 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"!

MRD-SkillUP

Team Members:
1. Name: Akash M Dubey
2. Name: Shiqi Yu
3. Name: Rutuja kale
4. Name: Dhrakshayani Priyanka
5. Name: Divyank

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

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 interconnection [3]. 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 553,000 [4]. 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 America [4], 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 pain [5]. 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 industry [6]. 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 million [7]. 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.

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 thatb 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.

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 efforts to improve their skills. SkillUp conducts various tests and thens 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

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 3G network. After Covid striked, 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. Searches through Available options, He finds udemy 60$ per course, udacity udacity 400$ monthly plan unaffordable. He realizes the Skill Up on playstore, downloads it. Rohit browses his skills needed for improving his dad's farming business. He clicks on those courses, clicks on run it on offline mode, 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 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 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, 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.

Market Size

The core market for Skillup is people who currently do not have access to high bandwidth and want to access courses with low bandwidth and have limited financial resources but want to learn new updated technologies for free. By researching we have created an estimate of the total addressable market for this application. The scope of these estimates was focused on Indian population as the primary initial market and expanded to the Asian and African countries as a larger market.

Target Region: 50% of the total population facing the Low internet bandwidth problem in India. Mostly the students from rural areas are having slow internet issues [8.]

Available market size: There are approximately 120 million professionals laid off due to limited skills and 320 million students affected due to school closures in India. Also, 1.2 billion children from 186 countries who got affected by school closures [9].

Laid-off employee/Limited financial resources: Employees need to enhance 'skills' or look for free resources (According to the Layoffs tracker in India in April 2020: 120 million) [10].

Total market size: 800 million includes people affected by slow internet connection and employees who want to enhance their skills.

India	Number of people
Total Population	**1366 million**
Low bandwidth Internet Users	688 million
Lay off Employees	120 million
Student affected due to School closure	320 million

Caveats / Risks

- **Privacy concerns:** 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 use the user data
- **Legal/patent risks:** 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

Strategic Considerations

SkillUp's current solution is a well thought and consistent solution that complies with the organization's strategy. SkillUp's current objective highlights the need to reach the masses who need to literate and make themselves competent so that they can apply for various jobs and compete with the world.

There are currently various products in the market such as Udacity, Udemy, Coursera, LinkedIn Learning. Udacity offers courses and nanodegrees on a monthly basis at 399$ per month and that is very costly for the common man who wants to learn. SkillUp on the other hand is providing such competitive courses for free with a community forum. The other product that covers a variety of courses is Udemy. Udemy charges per course that can go up to 100$ but the courses require high bandwidth of 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 efforts to improve their skills. Coursera is a platform that charges people on the basis of 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 if not they are charged again to study 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.

SkillUp is a product that is basically an amalgamation of ideas coming from various partners and each of us trying to find out as much as we can about our competitors so we know about their strengths and weaknesses and we can try to incorporate those pain points as features available in this product. We have explored the market where we think our product will be most effective and along with that we try at finding solutions to generate revenue while providing education for free so that we can sustain SkillUp's expenses and we can always try to improve for the better, compete with the already existing solutions and help masses to lead a better life.

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.

Contact :kale.ru@northeastern.edu , +1 6699002402

#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

Go/No Go Recommendation

Based on the Strong Market Size available and with the response results and research that only product SkillUP targets customer segments like 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. earning highest recommendation by the team for establishing its strong place in market , will proceed with developing MVP to test its value in market's interest and analyze if it solves customer needs.

References

[1] https://www.statista.com/statistics/792074/india-internet-penetration-rate/

[2] https://www.worldometers.info/world-population/india-population/

[3] https://www.statista.com/topics/6583/employment-in-india/

[4] https://www.deccanchronicle.com/nation/current-affairs/281119/over-553-lakh-indian-students-studying-overseas.html

[5] https://www.brookings.edu/blog/education-plus-development/2020/05/14/covid-19-in-india-education-disrupted-and-lessons-learned/

[6] https://www.statista.com/statistics/1124950/india-number-of-workers/

[7] https://www.bbc.com/news/world-asia-india-52559324

[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 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.

How many softwares are available for learning knowledge or skills in your phone?

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
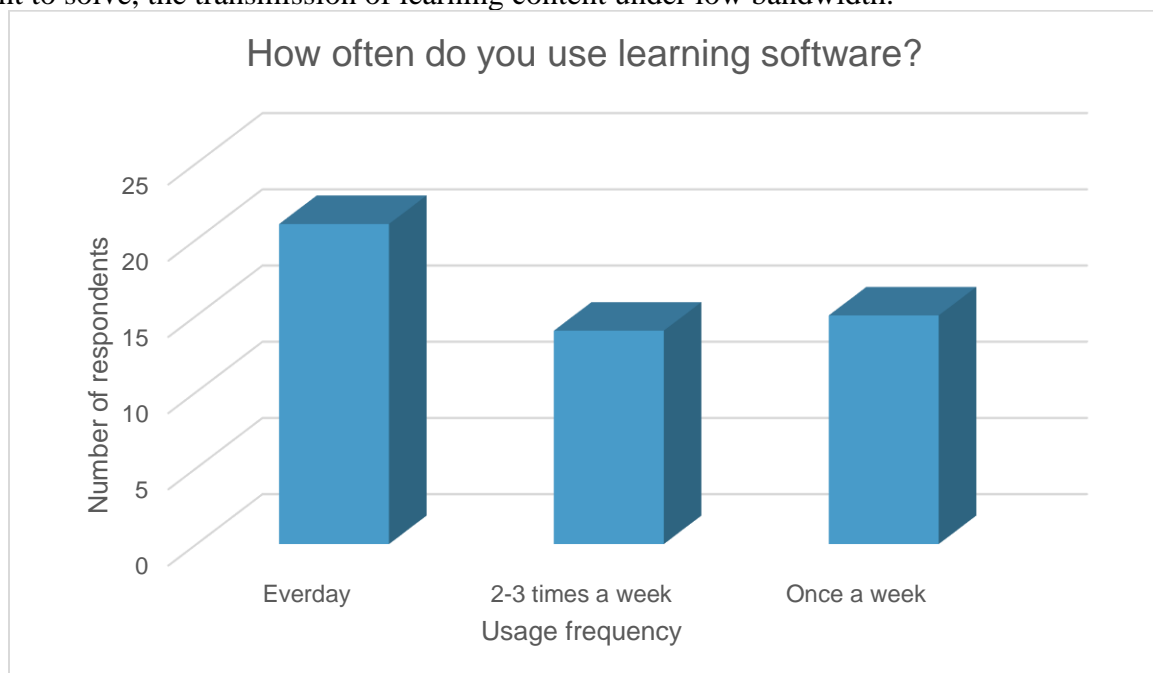want to solve, the transmission of learning content under low bandwidth.

How often do you use learning software?

Figure 2

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

6, 6%   14, 14%
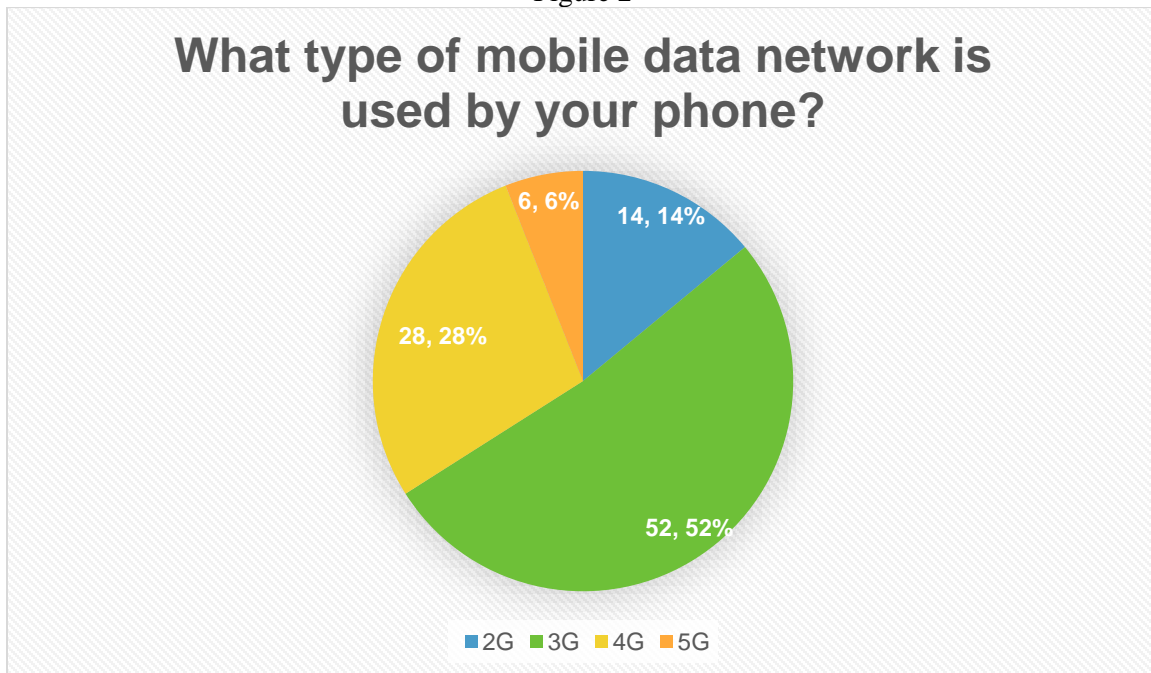
28, 28%

52, 52%

■2G ■3G ■4G ■5G

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.