



Quick Start Guide

- 1) Communicate with your team and get everybody online to play the game.
- 2) Everyone register with the application with the required fields and login to the application.
- 3) One person (host from now on) clicks on the Launch a new game and create a game for others to join.
- 4) Host selects the time for each move and number of turns needed in the game from the drop down that pops up while hosting the game(start with 5 minutes as time for each step and 15 turns for the game if you are new to the game)
- 5) The created game can be seen in the dashboard for all the players. (Refresh the page to get the updated list)
- 6) Host communicates the game Id for other players to join.
- 7) Rest of the players find the game in the dashboard by searching by game Id and join the game.
- 8) A maximum of 5 players can play the game. So when 5 players are in the game, including the host, the host can start the game.
- 9) Take a look at the UI to familiarize yourself
- 10) Every player gets \$65000, 5 resources when you start the game. You must start in PLANNING phase by performing project steps in planning phase.
- 11) Every player will be assigned 5 random risks for their software project. View the risks by clicking the risk dashboard.
- 12) When the players turn comes, the timer starts clicking. Perform a project step or mitigate a risk before the timer runs out. Else your chance will be missed.
- 13) You can always skip the turn by clicking the skip turn button if you don't have enough resources to perform any steps.
- 14) Review your risk cards in the risk dashboard.
- 15) Begin playing

Planning has ten activities in it. Your first step must be a planning activity. Once the first step of planning is complete, other phases will be unlocked and you can start looking at mitigating risks.

- 16) For each turn you can take ONE of the following actions:
 - a. **Try to mitigate a risk from the risk dashboard**
 - b. **Perform a Project Step in the project dashboard.**



- 17) You DO NOT have to follow a waterfall like model, you can jump between phases while playing the game. But your chances of performing a project step successfully depends on how well you plan your game and follow a software methodology.
- 18) To increase success rate, perform move level 1 steps and increase your capability points and bonus which will help increase success rate while performing level 2 and level 3 tasks.
- 19) To mitigate risks, you **CAN** perform **ALL** the steps that the mitigation card requires or proceed without doing any step. But again, the chances of mitigating the risk highly depends on the number of mitigation steps you have completed for the risk.
- 20) Remember, the more risks you have mitigated, the better your product will get profits once it is in **PRODUCTION**.



Things to Remember:

- To finish this game you must at least have something to sell (i.e., move to PRODUCTION)
- The game is ONLY over when no more players are left playing. The person who is left with the most money at the end WINS the game
- Money is a factor of cash on hand, the number of capabilities acquired and risk cards left in your hand.
- Don't forget to watch your cash. If your cash is ZERO, you won't be able to do much. If you can't pay the bills it is GAME OVER!
- Don't forget to watch your personnel level. You can't perform a step requiring more personnel than **AVAILABLE** on hand.
- When you land on any of the specialty cards (Surprise or Oops) you lose or gain resources or points depending on the card . Your turn is over once you gain or lost what the card says.
- If you decide to perform a project step, make sure you have enough resources and capability points. The less capability points and bonus you have, high are the chances of getting oopsed or surprised.
- Capabilities indicate skill/knowledge acquisition. Sometimes you get those, sometimes you don't.



UNDERSTANDING THE UI

The Game includes the following:

Resources Dashboard

Budget: The budget you have to play the game and release the product in market.

Capability Points: Skill points that you earn for every project step you perform. These points are important to decrease your chance of oops and surprise cards while performing level 2 and level 3 project steps.

Capability Bonus: Skill bonus that you earn for every project step you perform. This bonus is important to decrease your chance of oops and surprise cards while performing level 2 and level 3 project steps.

Personnel: The resources that are you have, who can be used for performing project steps or mitigating risks.

No. of resources who will return after:

One Turn: When the resources are assigned for doing a project step or risk mitigation, they will go away for two turns. This field shows the number of resources who will be back after the current turn.

Two Turns: This field shows the number of resources who will be back after the two turns.

Project Steps:

This includes the phases of a software development methodology. Each of the phases will have project steps that can be performed in that phase. Each project step needs some budget and resources for completion. Based on the resources you have, plan the steps that you need to perform and work towards launching the product to market.

Risk Dashboard:

5 risks are assigned to every player in the game. Once the product is in market, you start getting profit or loss from the product. This profit depends on the number of risks that you have mitigated.



Goals of the Game

From an education perspective, the game has the following learning goals:

- ☐ Teach risk management concepts, along with the importance of managing risk on a software project and its associated costs
- ☐ Make risk-based decisions and understand the impacts involved
- ☐ Understand the complexity involved in software development projects, the issues of resource tradeoffs and their effect on making project decisions

From a player's perspective there are three primary goals to the game:

- ☐ Manage the development of a software product and sell it in the market
- ☐ Compete with other players for getting your product to make your company more money
- ☐ Manage your project risks while acquiring project capabilities

Project Planning

Planning is an activity that supports your project. As such it is recommended that you give planning some thought before you jump into each project phase

Planning has ten activities in it. Your first step must be a planning activity. Once the first step of planning is complete, other phases will be unlocked and you can start looking at mitigating risks.

Each planning step completed provides you with a 10% bonus for every capability roll you make when acquiring project capabilities.

Also, the planning phase DOES NOT have any surprises or Oops in it, so when a player decides to perform a planning step, it is done with no interruptions.



What Can you do Each Turn

Each player in their turn can do one of three things: Try to **mitigate** a risk, **move ahead** with the project.

You make your decision first. Choose one option perform the step to see what **really happens**.

The randomness as per reality might give you an oops card or surprise card

Project Steps

Decide what project step you are interested in doing

- 1) Go to that step and if you are successful in doing it (meaning you haven't gotten oopsed or surprised).
- 2) Check to see if you have the available resources (Personnel, Money)
- 3) Decide if you want to spend the resources to perform the step
- 4) If you decide to perform the step, your resources required for the step will be gone **for 2 turns** (Those personnel are going to perform your task in the next step and so will not be available the **NEXT** turn but only the one **AFTER** next).
- 5) If you decide **NOT** to do this step, you can skip the turn by pushing the skip turn button. Your turn is now over.
- 6) You can decide when to move to the next phase. If you desire, you can go back and forth between phases. As an example, you can't go directly from Testing to Analysis & Design but rather have to go through implementation to do that.

Gaining Capabilities

Capabilities represent skills that are acquired as you go through project steps gaining practical knowledge that can serve you on this and on later projects. As in real life, capabilities can either be gained or lost.

To gain capabilities, you must first perform project steps.

- 1) Level 1 project steps provide automatic capabilities. Once you decide to perform this step and pay the relevant fees (not forgetting to set the personnel aside to work on it), you gain a capability.



- 2) Capability points and bonus are important for level 2 and level 3 steps. More the bonus more are the chances of not getting oops card or surprise card while performing the step.
- 3) Try to do more level 1 steps or planning steps to gain more capability and be confident of performing level 2 and 3 steps.

Risk Mitigation

If you decided to mitigate a risk - Steps for Risk Mitigation:

- 1) Decide what Risk to Mitigate
- 2) Check if the mitigation steps below that risk have been mitigated. More the steps you have performed, high the probability of mitigating the risk.
- 3) Don't take chance by just trying to mitigate a risk, without performing the steps, you will lose resources, budget and turn for every unsuccessful risk mitigation.
- 4) For example, if there are 5 steps for a risk to be mitigated, perform all 5 and then mitigate the risk to make sure the risk will be mitigated. Else the chances are high that you will fail.

Specialty Cards

Surprise Cards:

If you land on a surprise card, you will either get resources, money or capability points but your turn is over now

Oops Cards:

If you land on an Oops card, you will lose resources, money or capability points.

The Planning phase DOES NOT have any Oops or Surprise in it.

Reaching the End

A player can decide they want to end their product development ONCE they have completed at least one step of implementation

Reaching the end produces a ONE TIME bonus and a potential ongoing revenue stream they can **be collected** with every turn.



THE MORE RISKS YOU HAVE MITIGATED, MORE THE PROFITS YOUR PRODUCT MAKES.

If you have not mitigated any risk, you will lose money every turn and become bankrupt.

Who Wins

You win the game if you have the **MOST MONEY** when **ALL** the players have reached the end.

If two or more players have the same amount, the one with less risk cards is the one who wins.
