HackIt - service design tactics manual

This tactics manual helps you take a problem and start to solve it, using the principles of [service design](https://en.wikipedia.org/wiki/Service_design).

Why

When faced with a problem, we have traditionally asked individuals to develop a proposal for a project to fix the problem. It can take time before work begins, and we do not always know the best solution for a project.

This manual is rooted in an alternative approach: working in small teams to examine a problem from multiple perspectives, developing multiple hypotheses which are tested by developing rapid ‘prototypes’.

The benefits of this approach are:

* **Working faster** - developing key elements of a solution in days
* **Reducing risk**, checking an approach at low cost and learning about what works before making a larger investment
* **Improve outcomes,** particularly where user behaviour is critical, by defining how a successful approach needs to work

How

You can also use any one of the tactics to help a team work together to understand a problem, develop hypotheses to solve it and then test solutions rapidly with users. We have used each of these tactics on previous service design projects, and collated them in a single manual. You’ll want to use different tactics at different times on a project in order to help build a team and ensure it works efficiently to tackle complex problems.

You can combine most of these tactics to run a 5-day mini project, known as a ‘Google Sprint’. This is a device used by Google Ventures to deliver rapid improvements to a product or service.

Whilst these tactics are focused on delivering solutions that have an element of technology, they have been used successfully for many different forms of product and service development in government and the private sector.



[**Why 1**](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.db9986fqypt8)

[**How 1**](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.4jx5wnfcyqw1)

[**Tactic #1: Defining your challenge 4**](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.w4hsmp6v94d4)

[The bigger the challenge, the better the sprint 4](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.x7ijkgndkrs6)

[Setting up the team 4](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.imryolybdhky)

[Time and space 4](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.qa2t5tarzxkg)

[For inspiration 5](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.5xhirj19r0ka)

[**Tactic #2 - Team building 5**](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.ra0hrzrim8vd)

[**Tactic #3 - Start at the end 5**](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.37wr7fb2rdye)

[List sprint questions on the board 5](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.r2gg6763cym6)

[**Tactic #4 - Draw a map 5**](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.noao07o47m7o)

[List the stakeholders 5](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.7wufeoobepvj)

[Write the ending on the right 6](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.i2p4jm454mul)

[**Tactic #5 - Ask the experts 6**](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.a3zoyaku6pq2)

[**Tactic #6 - 5 Whys 6**](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.aqspix3amc6d)

[**Tactic #7 - Develop personas 7**](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.u9b45zar0r1)

[For inspiration 7](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.dukn5melmryk)

[**Tactic #8 - How Might We 7**](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.k5msl5qxc9y2)

[**Tactic #9 - Dot voting 7**](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.vbbdis1p2mll)

[**Tactic #10 - Choose a target 8**](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.pln5qb3hqn98)

[**Tactic #11 - Develop a vision 8**](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.xk84ndmzzg82)

[**Tactic #12 - Lightning demos 8**](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.716wo8edzucg)

[Make a list 8](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.hcpitgk3iqh7)

[Give a demo 8](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.fvfm2ylnvvpj)

[Capture big ideas 9](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.oha2yrj4dclo)

[Divide or swarm 9](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.yxwgh1vjp6hc)

[**Tactic #13 - Sketch 9**](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.99cmyt5aj0xy)

[Making a decision 10](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.rrvl71ipkwwa)

[A rumble 10](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.akknt3nrezuo)

[**Tactic #14 - Storyboard 10**](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.bkw1qlwglp8i)

[For inspiration 10](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.v25ke4smks4y)

[**Tactic #15 - User stories 10**](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.f0ru157gdd2w)

[For inspiration 11](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.f2j4rku7g75c)

[**Tactic #16 - Prototyping 11**](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.j5rkpfhqfago)

[For inspiration 11](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.1mxyddvgk20d)

[**Tactic #17 - Interviewing users 11**](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.gsi3ysuyw2xi)

[**Tactic #18 - Writing business rules 12**](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.aeqax44j0h7v)

Tactic #1: Defining your challenge

The bigger the challenge, the better the sprint

For example  
1, High stakes - a big problem which is likely to require considerable investment of time and money to solve. A sprint can check the direction of travel to reduce risks of heading off in the wrong direction

2. Not enough time

Helping generate good solutions, quickly

3. Just plain stuck

Generate a fresh approach to problem solving

Setting up the team

Ensure a decision maker is on the team. Sell it in the following terms:

1. We’ll make rapid progress
2. It’s an experiment
3. Explain what you will sacrifice to do this (in terms of existing commitments)
4. It’s about focus

The ideal team is seven people or fewer. Try to put together people who don’t usually work together. Consider the following roles:

1. Decider
2. Policy expert
3. Comms expert
4. Frontline staff expert
5. user expert
6. Design expert

Pick a facilitator, and try to find a troublemaker. If you need extra experts, schedule them for day one.

Time and space

Block five full days in the calendar

Allow no devices in the room - it’s ok to leave to check a device

You’ll need:

Big whiteboards

Post-Its

Sharpies

A4 and A3 paper

For inspiration

[Speed up your team with a service blueprint](https://blog.practicalservicedesign.com/speed-up-your-team-with-a-service-blueprint-399a011121a)

[Service design at the BBC](http://www.bbc.co.uk/blogs/internet/entries/4c06d6ef-3d11-4897-9588-7a55deaa1f32)

Tactic #2 - Team building

If the team hasn’t worked together before it can be useful to break down barriers and develop a shared understanding of what people want. Give everyone a pad of Post-Its and ask them to write down:

1. what they would like to get out of the project and,
2. on a separate Post-It, what they would like to give to the project.

Ideally, the facilitator would collect these up, put them on a wall and lead a discussion around each idea. This can help

For inspiration

[The secret to good team working](https://qz.com/625870/after-years-of-intensive-analysis-google-discovers-the-key-to-good-teamwork-is-being-nice/)

Tactic #3 - Start at the end

If you’re working in a short timeframe, it’s important to remain focused on a longer-term goal. Articulate what are you trying to achieve over a 6, 12 or 24 month timeframe? See also: develop [a vision statement](https://docs.google.com/document/d/1sJ7AEC23vXTMrUNZXCNV9NsiYhhRmG1KDEQWzF5W8nA/edit#heading=h.xk84ndmzzg82) for your project

List sprint questions on the board

Three prompts can help define the challenges to be addressed through the sprint:

1. What questions do we want to answer in this sprint?
2. To meet our long term goal, what has to be true?
3. Imagine at the end of the project, we’ve failed. What caused that?

Rephrase assumptions and obstacles as questions.

Tactic #4 - Draw a map

List the stakeholders

On the left hand-side of the board, write the key stakeholders involved in delivering the goal. For example, in housing repairs it might be tenants and leaseholders, contact centre, repair staff.

Write the ending on the right

Write out the [critical path](https://en.wikipedia.org/wiki/Critical_path_method) that need to be followed to produce the end result. Keep this simple for now, avoiding the complexity of rules. For example - ‘assess eligibility’ is better than setting out all of the qualification rules.

Tactic #5 - Ask the experts

Interview the Decider. Understand:

* What will make this project a success?
* What’s our unique advantage or opportunity?
* What’s the biggest risk?

Understand the user:

* What are they doing currently to solve this problem?
* Where are the key pain points?

Understand the business:

* What are the constraints of legislation or policy?
* What are the opportunities and challenges of existing technology solutions?

Understand previous efforts:

* What have we already tried?
* To what extent has it worked?
* Why does the problem remain?

There are key rules to sharing the outputs:

* Iterate your existing work - eg amend the map
* Make it visible - eg key statistics on the wall, key quotes
* Share it across the team - present your findings

Tactic #6 - 5 Whys

The 5 Whys is a technique used in the Analyze phase of the Six Sigma DMAIC (Define, Measure, Analyze, Improve, Control) methodology.  
  
By repeatedly asking the question “Why” (five is a good rule of thumb), you can peel away the layers of symptoms which can lead to the root cause of a problem. Very often the ostensible reason for a problem will lead you to another question. Although this technique is called “5 Whys,” you may find that you will need to ask the question fewer or more times than five before you find the issue related to a problem.

Tactic #7 - Develop personas

Personas can help give an identity to the types of users we’re working for, and bring to life their needs and challenges. Talking about them collaboratively can help a team with different expertise develop a shared understanding of what they need to do.

Personas can provide a reference point as you work through the service design process, so that you can check back and ask whether the proposed solution really would meet the needs of the persona.

There are lots of ways to develop personas, but we favour a light-touch way which emphasises high-level hypotheses over detail.

1. Divide a sheet of A4 into 4 boxes
2. In the top left box, give the persona a picture, firstname, age and role (eg user, practitioner etc)
3. In the top right box, introduce them with pertinent points that affect the way they engage with the service
4. In the bottom left box, describe their experience of the current situation in 5-7 bullet points
5. In the bottom right box, describe their experience of an ideal ‘future state’

Ask participants to introduce their persona to the group and present their thoughts. They should not be challenged, but after everyone has introduced a persona, you may wish to conduct 2-3 further rounds of sketching.

For inspiration

[Personas and user journeys in design thinking](https://medium.com/@arnevanoosterom/personas-journey-mapping-some-thoughts-on-implementing-design-thinking-7a546140facc#.gsr85v4jz)

Tactic #8 - How Might We

Each person writes their own notes, one at a time on different Post-Its. Each Post-It begins ‘How Might We’ (write HMW in the top corner for speed). Convert your thinking into questions. These will often be responses to the interviews

Organise the notes in themes or groups on the wall. Give each theme or group a label.

Tactic #9 - Dot voting

1. Give a dot (or a pen to make a dot) to each participant.
2. Ask everyone to review the goal and sprint questions
3. Ask everyone to vote (2-4 times, depending on the number of Post-Its) for the most useful ‘How Might We’ questions.
4. Consider giving the Decider double the number of votes
5. Take the top HMW Post-Its and put them on the relevant part of the map

Tactic #10 - Choose a target

If you’re following the Sprint format, this will be your final task on the first day. From this point onwards you’ll be sketching solutions, making a plan and building a prototype of that moment.

Choose one target stakeholder and one target event on the map. Circle it.

Once you’ve done that, look back at the sprint questions. Your circle should match to one or more of the sprint questions. That will be your focus for the next four days.

Tactic #11 - Develop a vision

Vision statements traditionally take a long time to develop. However, it can be useful to have a shared vision across a team of what you’re trying to achieve - particularly if people haven’t worked together before, or if part of the team has already developed a view of what the solution should look like.

This template helps rapidly develop a vision statement for a project team:

**A** [insert the name of the thing - eg ‘digital service]

**For** [insert the types of people who will use the thing - eg older people living alone in Hackney]

**That** [what does it do? - eg. helps them chat to other older people]

**So that** [what benefit are we trying to deliver - eg. they feel less lonely]

**Unlike** [what’s your key point of difference - eg. charity services that have negative connotations]

Ideally your vision statement will take less than 20 seconds to say. Print it out on a big sheet and make it clearly visible to all the team.

Tactic #12 - Lightning demos

Make a list

Ask everyone on your team to come up with a list of products or services to review. These should be inspirational. Remind people to think outside of local government;)

Give a demo

Each person who suggested a product or service should give a brief presentation to the whole team, showing what’s good about it.

Capture big ideas

Write on the whiteboard the big ideas behind the products that might be useful. Make a quick sketch of that inspiring component, write a simple headline above it and note the source underneath.

When set alongside your map, you’ve now got:

* an initial area of focus,
* insights about what matters most, what we already know, and what constraints we face
* external stimuli - what does a great product or service look like?

Divide or swarm

You’ve now got a choice - do you divide the team up to look at two or more elements of the map, or do you all swarm into a single focus.

Tactic #13 - Sketch

Sketching is really important as a means of expressing your ideas quickly, identify any key uncertainties and provide a means to evaluate the idea.

Work alone - it’s important to give people the time and space to come up with their own ideas. But share regularly: someone else’s idea will stimulate another person’s thinking.

Take notes (20 minutes)

Encourage the team to walk around the room taking notes. These don’t have to be structured but should capture the key learnings and implications - gathering your thoughts in one place.

Generate ideas (20 minutes)

A free sketching session - doodles, experiences etc. The team might want to present back their ideas, in order to generate more. You don’t have to show the whole service - core components, particularly screens, ‘moments’ - whatever people wish.

Rapid variations (5-10 minutes)

Try to generate alternative ideas to the ones you produced first. Look for radically different rather than variations on a theme.

Solution sketch (30 minutes)

Call the team back into a group. Figure out the details of the product or service. If you’ve a strong sketcher, they might ‘hold the pen’ whilst the team talk through each step. With any format, there are some key rules to follow:

* Make it self-explanatory
* Keep it anonymous
* Ugly is ok
* Words matter
* Give it a catchy name

Making a decision

There are five steps to making a decision of which solution to take forward:

1. Display the sketches on the wall
2. Use dot voting to mark interesting parts
3. Discuss the highlights of each solution
4. Vote for one solution each (you might want an anonymous ballot if there are strong personalities in the room, or if people are used to a hierarchy)
5. The Decider makes the final decision

A rumble

If you can’t decide on one idea, you can have a competition by splitting the teams and each team works on their preferred prototype. Think ‘the Apprentice’ without the silly team names or crap management.

Tactic #14 - Storyboard

Create a storyboard to show the service or product from start to finish

1. Draw a grid
2. Choose an opening scene: how do your users find the service exists?
3. Complete the storyboard
4. Include sufficient detail that no one has to ask ‘what happens next?’ or ‘What goes here’
5. When in doubt, take risks - don’t look for small fixed but favour risky solutions to test
6. Keep the story to 15 minutes or less

For inspiration

[How to build empathy maps](https://uxdict.io/design-thinking-empathy-map-c69ab5d6b22#.5vrtc0yg3)

Tactic #15 - User stories

User stories are a device for capturing what the user needs from the solution. By explaining what the user needs, it enables a designer and developer to work together to find the best way of meeting this need. This can be preferable to detailed documentation that can inadvertently add extra complexity or fail to explain what you really mean.

A user story has three parts:

1. As a [type of user]
2. I want to [a thing the user wants to do]
3. So that [why they want to do it]

Once you’ve created lots of user stories, you can prioritise which are most important to develop in the next phase. The remainder are valuable to keep for the next stages of development.

For inspiration

[Writing good user stories](https://barryoreilly.com/2013/10/21/how-to-implement-hypothesis-driven-development/?utm_content=buffer2880f&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer)

Tactic #16 - Prototyping

There are lots of ways of prototyping- from drawing pictures of what something might look like, [wireframing](https://en.wikipedia.org/wiki/Website_wireframe) or developing the web interface that a user would use, without the data or software integration that might be delivered in a full working service.

It’s important to develop a prototype that’s good enough that the user can provide useful feedback. This is often called a ‘minimum viable product’ - the least you can get away with vs enough to be viable.

Sometimes, startup companies will have just a webpage which ‘pitches’ the product as ‘coming soon’ and offers a box to sign-up for further information. If they get lots of sign-ups, they know it’s an attractive proposition and might develop it further. If there are few, they’ve saved the cost and time involved in actually building the product.

For inspiration

[Prototyping for dummies](https://speakerdeck.com/stephengill/prototyping-for-dummies)

[How to prototype in your web browser](https://designnotes.blog.gov.uk/2016/10/03/how-to-prototype-in-the-browser/)

[Prototyping through chatbots](https://medium.com/ideo-stories/chatbots-ultimate-prototyping-tool-e4e2831967f3#.375klcrvo)

Tactic #17 - Interviewing users

If you interview just five users, you will get important insights about how your product works. The following are essential to ensure that you get valuable insights from the interviews:

* Ask permission to record the session, but make clear that you will not keep their details unless they ask otherwise
* Explain that they’re helping test a service - make clear you’re not testing them!
* Make clear that you had no hand in building this - so that they don’t hold back from saying what they think
* Give them a task before they start - eg ‘I’d like you to try to apply for a passport’
* Ask open ended questions - eg ‘what do you expect to happen next’
* Ask them to talk to you about what’s going on in their head - eg ‘What do you think when you see this?’

Tactic #18 - Writing business rules

Our services are conditioned by the business and legislative rules that determine how we can design something. The ‘gherkin syntax’ provides a common way of capturing these in a simple format.

The structure of a Gherkin syntax is:

* Feature
* Scenario
* Given, When, Then, And, But (Steps)
* Background
* Scenario outline
* Examples

This is an example from a cash machine

* Feature: Account Holder withdraws cash
* Scenario: Account has sufficient funds
* Given the account balance is £100
* And the card is valid
* And the machine contains enough money
* When the Account Holder requests £20
* Then the ATM should dispense £20
* And the account balance should be £80
* And the card should be returned