Architecture Cheat Sheet: Internal Training Exercise Outline

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Note: this exercise outline is theoretical as I have not yet run it in practice. For further information, or to provide feedback on your experiences using it, please make contact with me through LinkedIn.

In theory this approach can be used to develop cheat sheets, and more importantly participants mental models and understanding, of any topic, for example integration, APIs and microservices, security and so on.

Delivery Overview:

- **Target Audience**: junior architects, aspiring architects. Optionally, architect team leads looking for tools and techniques to help their junior team members.
- **Format**: in-person workshop, or interactive online call.
- **Suggested Attendee Numbers**: 3 - 10.
- **Estimated Duration**: 3-4 hours, including individual worktime with instructor available on the call. Time includes a couple of small breaks during the session.

Workshop Outcomes:

- To help develop / start developing, a holistic mental model of architecture.
- Compile key ideas from these topics into a cheat sheet (unique for each participant) for use in a variety of situations, such as: engaging with business stakeholders, working with project team members, dealing with vendors, and so on.

Each participant should leave the workshop with at least the partial outline of a cheat sheet, tailored by them for their use, and guidelines for completing it and improving it over time.

Workshop Approach:

1. Start by putting solution architecture in context - broadly define what it is, the types of inter-personal interactions you'll have as a solution architect, and how a cheat sheet can help.
2. Outline what the cheat sheet is, how to use it, and what form it should take.
3. Define the areas of knowledge that we'll be iterating through.

For each area of knowledge:

1. Discuss what it is, it's scope, how it fits in, and why it's important for the solution architect.

2. Instructor led / supported, interactive discussion with participants to discuss ideas for content for the current section.

3. Participants should be given time to individually start drafting their content for the section, followed by a short review discussion. Participants will be able to ask the instructor questions as they go. During the review discussion, participants should be encouraged to share ideas and constructively challenge each other.

Close the workshop with a group discussion on the overall topic, much like the discussions held for each area of knowledge but looking at the overall domain and how things inter-relate, and/or where participants can share ideas and their progress.

Discuss techniques for self-learning, including critical thinking and critical evaluation of sources and materials. Ensure participants are clear on next steps.

Participants should have access to the instructor for follow-up questions and support post the event, regarding what was covered in the workshop. You could also follow up with a general review, perhaps two weeks or more, after the workshop to see how people have progressed.

Areas of Knowledge:

The following topics are **suggested** areas of knowledge that may be used to structure the workshop and participants solution architecture cheat sheet.

1. Meta / the universe (why, time, etc)
2. Design thinking
3. Logical layers, levels of granularity
   - Layers vs tiers.
4. Views & Perspectives (formal and informal)
5. Solution Lifecycle / SDLC
6. Governance
7. Business & project management concerns
8. Information architecture
   - Information lifecycle (CRUD)
9. System Quality Attributes & NFRs
10. Security
11. Performance
12. Deployment
13. Operation & support
14. Existing models/concepts, e.g.:
    - Transactions (ACID)
    - OSI Model
15. Anything else, e.g.:
    - Licensing
    - Intellectual property