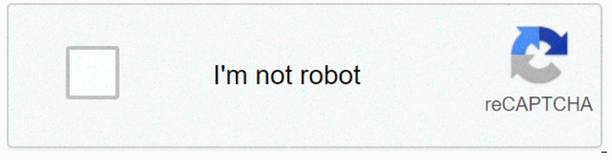

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Healthcare domain knowledge pdf

In the previous article I explained what domain knowledge is and the importance of domain knowledge in the IT industry. This article briefly explains the basic knowledge of the area of care. Continue reading about Hospital Management SystemAbout Healthcare Domain KnowledgeThe healthcare is one of the largest industries in the world and has a direct effect on the quality of life of people in each country. Health care (or health care) is the diagnosis, treatment and prevention of diseases, illness, injury and other physical and mental disabilities in humans. Health care is provided by practitioners in medicine, chiropractic, dentistry, nursing, pharmacy, related health, and other health care providers. The healthcare industry, or medical industry, is a sector that provides goods and services to the treatment of patients with curative, preventive, rehabilitative or palliative care. Health Care TerminologySubscriberMemberProviderClaimsCoinsuranceCopaymentDeductibleFSAMSAIn-depth TerminologyCoverage TypeEnrollment, Effective and Termination DatesCapitation etc. PHIHIPAAHealth Care PlansCOBTPLICD Codes - ICD9 vs. ICD10HL7Commercial Health Care PlansPreferred provider organization (PPO)Exclusive provider organization (EPO)Health maintenance organization (HMO)Supplemental InsuranceMedigapOvernment Health Care PlansicaidmedicareHealth Insurance Portability and Accountability Act (HIPAA)What is HIPAA? HIPAA BasicsHIPAA Transactions837 – Claims Submission (Professional / Institutional and Dental)834 – Enrollment (Benefit Enrollment and Maintenance)820 – Premium Payments (Payroll Deducted and Other Group Payments)270/271 – Eligibility and Benefits (Health Care Eligibility Inquiry and Response)278 – Authorization (Health Care Services Request for Review and Response)4010 to 5010 conversionHealth Care SystemsMember ManagementReimbursement Management (Claims Processing)Benefits AdministrationPrior AuthorizationRate SettingICD 9 to ICD 10 ConversionWhat are the ICD Codes? Benefits of conversion? ConcernsThings to take into accountanalysis guidelinesTesting ConsiderationsCOB and TPLCoordination of Benefits (COB)What is COB? Why COB? COB RulesThird-Party Liability (TPL)What is TPL? Why TPL? TPL RulesHealth Care BasicsSubscriber: Person who pays the premium and who is covered by the family. Member: Who receives medical coverage under a subscriber. Dependents of the family. Provider: In simple words, every place we can go and get treatment. Formal definition Any individual, institution or agency that provides health care to consumers. Claims: An invoice from the provider to the doctor for the services provided. Coinsurance: A form of medical cost sharing in a health insurance plan that requires an insured person to pay a certain percentage of medical expenses after the amount, if any, was paid. Copayment: A form form share medical expenses in a health insurance plan that requires an insured person to pay a fixed amount in dollars when a medical service is received. The insurer is responsible for the rest of the fee. Deductible: A fixed dollar amount during the benefit period – usually one year – that an insured person pays before the insurer starts paying for covered medical services. FSA (Flexible Spending Accounts or Schemes): Accounts offered and managed by employers that provide a way for employees to set aside, from their salaries, pre-tax dollars. I can only pay medical expenses. Money lost as unused. FSA can cover childcare costs if set up separately. MSA (Medical Savings Account) / HSA (Health Spending Account) - Savings accounts designated for out-of-pocket medical expenses. Employers and employees can contribute to this and be pre-taxed. May carry unused funds in the future year. Are normally combined with high-deductible or catastrophic health insurance plans. Fully insured Plan – A plan whereby the employer contracts with another organization to assume the financial responsibility for the enrollees' medical claims and for all administrative expenses incurred. ConclusionI hope you found this article on healthcare domain knowledge basics. I would love to have feedback from my blog readers. Your valuable feedback, question or comments on this article are always welcome. by G C Reddy · Published June 17, 2015 · Updated may 17, 2018Health domain knowledge for software testersThe healthcare is one of the largest industries in the world, and it has a direct effect on the quality of life of people in each country. Health care (or health care) is the diagnosis, treatment and prevention of diseases, illness, injury and other physical and mental disabilities in humans. Health care is provided by practitioners in medicine, chiropractic, dentistry, nursing, pharmacy, related health, and other health care providers. The healthcare industry, or medical industry, is a sector that provides goods and services to the treatment of patients with curative, preventive, rehabilitative or palliative care. Overview of the healthcare industry: The healthcare, or medical industry, is a sector that provides goods and services to treat patients with curative, preventive, rehabilitative or palliative care. The modern healthcare sector is divided into many sub-sectors, and relies on interdisciplinary teams of trained professionals and paraprofessionals to meet the health needs of individuals and populations. This article gives an overview of medical industry. History of the Healthcare Industry: This article provides a brief history of the health care industry and discusses major world events that affected and shaped health care as it is today. This article briefly follows the global health care history from antiquity to colonial colonial to the modern era. This article also discusses various ideologies that have dictated the path of global health and defined the trend towards globalization of the healthcare sector. Health care or health insurance is similar to general insurance. As you know, in an insurance, insurer (insurance company) will plan and the customer (subscriber or policyholder) will buy policy from his desired plan. The insurer receives the premium amount from the policyholders and the policyholders receive reimbursements from the insurer for the valid claims they have submitted. The same thing happens in health insurance, but in addition to insurer and policyholder there are other major contributors such as provider, TPA (Third Party Administrator), BROKER, etc.1.) Insurer: An entity that creates a plan, sells policy, and reimburses the policyholder or provider for the valid claims filed.2.) Policyholder: Health insurance policyholder A person or entity who buys the policy from the insurer or broker pays premium to the insurer and sometimes submits a claim.3.) Provider: A person or entity that provides the health service to the policyholder and his dependants receives either payment for the service of the policyholder or from the insurer by making a claim.4.) TPA: A person or entity that manages the claims of policyholder or provider and receives the payment for management from the relevant contributor.5.) BROKER: Health insurance broker As you have guessed, he is an agent who sells policy to the clients on behalf of the insurer and receives commission in exchange from the Insurer.6.) Subscriber - Person who pays the premium and under whom the family is covered7.) Member - Who receives medical coverage under a subscriber. Dependents on the family.8.) Receivables – An invoice from the provider to the doctor for the services provided.9.) Coinsurance – A form of medical cost sharing in a health insurance plan that requires an insured person to pay a certain percentage of medical expenses after the deductible amount, if any, was paid.10.) Copayment – Share some form of medical expenses in a health insurance plan that requires an insured person to pay a fixed dollar amount when a medical service is received. The insurer is responsible for the rest of the refund11.) Deductible – A fixed dollar amount during the benefit period – usually one year – that an insured person pays before the insurer starts paying for covered medical services.12.) FSA (Flexible Spending Accounts or Schemes) - Accounts offered and managed by employers that set aside a way for employees, from their salaries, before taxes Can only pay medical expenses. Money lost as unused. FSA can cover childcare costs if set up separately.13.) MSA (Medical Savings Account) / HSA (Health Spending Account) - Savings accounts designated for medical expenses. Employers and employees can contribute to this and are taxed in advance. May have unused funds in the future year. Are normally combined with high deductible or catastrophic health insurance plans.14.) Fully insured Plan – A plan where the employer concludes contracts with another organization to take financial responsibility for the medical claims of the enrollees and for all administrative costs incurred.Commercial health plans: • Preferred provider organization (PPO) • Exclusive provider organization (EPO) • Care maintenance organization (HMO) • Supplementary insurance • MediGapGovernment Health Plans:• Medicaid • Coverage • Coverage • Medicare • Fitness • CoverageHow to test care application? Before we test an application, we need to be aware of the workflow in healthcare. The previous topic gives only an introduction to the managed health care, more details are available here. An insurer needs several applications to manage the following: • Member data • Member data • Premium billing/payment • BROKER data • Claim entry/validation • BROKER COMMISSION CALCULATION/PaymentGeneral has a healthcare application the following list of systems:• Member system – To keep the policyholder's data, different plans with their list of benefits and generate premium accounts for the policyholder based on their plans • Provider system - To maintain provider data • Broker system - To maintain BROKER data and calculate commissions • Claims system - For claim entry and validation • FINANCEsystem - To make the necessary payment to provider / member / broker • Member portal - To display the policyholder information, make premium payments and request change information for policyholders • Provider portal – To view provider information and request change information for providers • Broker portal – to display broker information and request for change information for BROKERS , Provider system can be part of the member system in some healthcare application. By healthcare application I mean a set of systems that are maintained by an insurer to facilitate their customers and partners. Health Care Application Testing Work flow: The unique feature of the healthcare system is that, these applications cannot be tested in any order we want. There is a particular workflow that needs to be followed: • In order for a member/policyholder to enroll in a health plan, he/she must be assigned to a provider (general practitioner) or a provider network, so there must be a way for member system to validate the supplier. Both members connection to the provider system or data feed must be periodically sent from the provider system to the member system. Therefore provider system should be tested and ready for use for testing member system. • A claim must consist of provider ID and and ID in addition to other details. Claim system must validate both the member and provider to validate the claim, so both member and provider system should be tested and ready for use for testing claims system. • The financial system must have data from members, providers and broker systems to write cheques or make EFT payments to the relevant person or entity. • Provider and BROKER systems stand alone. • Portals finally need to be tested because it needs data from the other applications. Health Insurance Portability and Accountability Act (HIPAA): HIPAA is the federal Health Insurance Portability and Accountability Act of 1996. The primary purpose of the law is to make it easier for people to keep health insurance, protect the confidentiality and security of health care information, and help the healthcare industry control administrative costs. HIPAA Transactions: • 837 – Claims submission (Professional / Institutional and Dental) • 834 – Registration (Registration and maintenance of a benefit) • 820 – Premium payments (payroll deduction and other group payments) • 270/271 – Fitness and Benefits (Health Care Eligibility Inquiry and Response) • 278 – Authorization (Health Care Services Request for Review and Response) Challenges Faced by Testers in the Healthcare Domain: Testing healthcare software is a difficult task for testers as it requires a huge knowledge of the domain. It also poses many challenges because of the complexity of the design, diagnosis, and daily development of the patient. In addition, the product must meet various safety and regulatory standards such as IHE, HL7 and others. With an increase in demand for healthcare software, there has also been an increase in product complexity. Some of the challenges are1. Healthcare Standards: Testers should be aware of the different standards in the healthcare domain, such as DICOM, HIPAA and others, while testing the product for different aspects. Testing a health product without knowledge of the different standards will result in the inadequacy of testing.2. Domain and system knowledge: Testers need to be well aware of the different functionality, clinical use, the environment that the software will use, and others while testing health products.3. Safety and hazards: If the health product is not adequately tested for safety and hazards, it will have a fatal impact not only on the product, but also on the patient. Testers should be able to identify the different hazards and their impact.4. Process Compliance: Healthcare products must also meet various standards such as FDA, ISO and CMMI before they can be used. Testers are well trained on the basis of the different standards to ensure that the product meets the requirements of the different standards.5. Cross Dependence on Software:Complex software has several components and layers. Layers. in one component or layer can cause some side effects on the other. Testers should make sure that there are no side effects on the other layers when there are changes. ————————————-Tags: Clinical Management SystemDomain knowledge for TestersHealth Insurance SystemHealthCare Software DomainHealthcare Software ProjectsHealthcare Software TestingHospital Management Systeming Healthcare Projects Projects